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<210> 5266

<211> 853

<212> PRT

<213> Homo sapiens

<400> 5266

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Glu	Glu	Ile	Leu	Pro	Glu	Pro	Gly	Ser	Glu	Thr	Pro	Thr	Val	Ala	Ser
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Glu	Glu	Thr	Thr	Thr	Thr	Ile	Ile	Thr	Thr	Thr	Thr	Val	Thr	Thr	Thr
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Val	Thr	Ser	Pro	Val	Leu	Cys	Asn	Asn	Asn	Ile	Ser	Glu	Gly	Glu	Gly
			100					105					110		
Tyr	Val	Glu	Ser	Pro	Asp	Leu	Gly	Ser	Pro	Val	Ser	Arg	Thr	Leu	Gly
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Leu	Leu	Asp	Cys	Thr	Tyr	Ser	Ile	His	Val	Tyr	Pro	Gly	Tyr	Gly	Ile
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Glu	Ile	Gln	Val	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Glu	Glu	Glu	Leu	Leu
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Val	Leu	Ala	Gly	Gly	Ser	Pro	Gly	Leu	Ala	Pro	Arg	Leu	Leu	Ala	
			165					170					175		
Asn	Ser	Ser	Met	Leu	Gly	Glu	Gly	Gln	Val	Leu	Arg	Ser	Pro	Thr	Asn
			180					185					190		
Arg	Leu	Leu	Leu	His	Phe	Gln	Ser	Pro	Arg	Val	Pro	Arg	Gly	Gly	Gly

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Phe	Arg	Ile	His	Tyr	Gln	Ala	Tyr	Leu	Leu	Ser	Cys	Gly	Phe	Pro	Pro
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Arg	Pro	Ala	His	Gly	Asp	Val	Ser	Val	Thr	Asp	Leu	His	Pro	Gly	Gly
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Thr	Leu	Ile	Cys	Leu	Asn	Gly	Thr	Arg	Pro	Ser	Trp	Asn	Gly	Glu	Thr
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His	Phe	Glu	Arg	Val	Ser	Leu	Asp	Glu	Asp	Asn	Asp	Arg	Leu	Met	Val
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Asp	Asp	Val	Pro	Glu	Arg	Gly	Leu	Ile	Ser	Asp	Ala	Gln	Ser	Leu	Tyr
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Val	Glu	Leu	Leu	Ser	Glu	Thr	Pro	Ala	Asn	Pro	Leu	Leu	Leu	Ser	Leu
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His	Gly	Asn	Val	Thr	Thr	Thr	Asp	Pro	Glu	Tyr	Arg	Pro	Gly	Ala	Leu
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Phe	Asp	Gly	Asp	Gly	Pro	Ser	Ala	Arg	Val	Leu	Ala	Gln	Leu	Arg	Gly
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Pro	Gln	Pro	Arg	Arg	Arg	Leu	Leu	Ser	Ser	Gly	Pro	Asp	Leu	Thr	Leu
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Ser His Val Gln Tyr Arg Cys Leu Pro Gly Tyr Ser Leu Glu Gly Ala
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          675          680          685
Asp Arg Val Pro Lys Cys Ala Leu Lys Tyr Glu Pro Cys Leu Asn Pro
          690          695          700
Gly Val Pro Glu Asn Gly Tyr Gln Thr Leu Tyr Lys His His Tyr Gln
705          710          715          720
Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu Leu Ile
          725          730          735
Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln Trp Thr
          740          745          750
Ser Gln Pro Pro Leu Cys Lys Val Ala Tyr Glu Glu Leu Leu Asp Asn
          755          760          765
Arg Lys Leu Glu Val Thr Gln Thr Thr Asp Pro Ser Arg Gln Leu Glu
          770          775          780
Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro Leu Gly Leu Val Ile
785          790          795          800
Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr Lys Leu Gln Gly Lys
          805          810          815
Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr Ser Pro Ile Thr Val
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Glu Ser Asp Phe Ser Asn Pro Leu Tyr Glu Ala Gly Asp Thr Arg Glu
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Tyr Glu Val Ser Ile
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<210> 5267

<211> 885

<212> DNA

<213> Homo sapiens

<400> 5267

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240
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360
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420
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480
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540

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 720
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<210> 5268

<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

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Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala	35	40	45	
Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val	50	55	60	
Arg	Glu	Ile	Tyr	Met	Asn	Val	Pro	Val	Gly	Ala	Ala	Gly	Val	Arg	Gly	65	70	75	80
Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr	85	90	95	
Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro	100	105	110	
Gly	Met	Glu	Leu	Thr	Pro	Met	Asn	Pro	Val	Thr	Leu	Lys	Pro	Gln	Gly	115	120	125	
Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn	130	135	140	
Trp	Gly	Gln	Pro	Val	Tyr	Gln	Leu	His	Ser	Ala	Ile	Gly	Gln	Asp	Gln	145	150	155	160
Arg	Gln	Leu	Phe	Leu	Tyr	Lys	Ile	Thr	Ile	Pro	Ala	Leu	Ala	Ser	Gln	165	170	175	
Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val	180	185	190	
Asp	Glu	Ala	Lys	Thr	Tyr	Ala	Ala	Glu	Tyr	Thr	Leu	Gln	Thr	Leu	Gly	195	200	205	
Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	Ala	210	215	220	
Ala	Thr	Ala	Phe	Pro	Gly	Tyr	Ala	Val	Pro	Asn	Ala	Thr	Ala	Pro	Val	225	230	235	240
Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala	245	250	255	
Ala	Tyr	Thr	Thr	Tyr	Glu	Val	Tyr	Pro	Thr	Phe	Ala	Val	Thr	Ala	Arg	260	265	270	
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<210> 5269

<211> 1177

<212> DNA

<213> Homo sapiens

<400> 5269

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<210> 5270

<211> 327

<212> PRT

<213> Homo sapiens

<400> 5270

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Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
          35           40           45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
          50           55           60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
          65           70           75           80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
          85           90           95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
          100          105          110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
          115          120          125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
          130          135          140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
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Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
          165          170          175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
          180          185          190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
          195          200          205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
          210          215          220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
          225          230          235          240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
          245          250          255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
          260          265          270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
          275          280          285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
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Asp Glu Ile Phe Cys Glu Glu Ile Ala Lys Ala Ser Val Gln Asp Phe
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<210> 5271

<211> 1185

<212> DNA

<213> Homo sapiens

<400> 5271

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120

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<212> PRT

<213> Homo sapiens

<400> 5272

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			20					25					30		
Glu	Cys	Gly	Asn	Val	Thr	Gly	Ala	Ser	Ser	Pro	Ser	Arg	Thr	Pro	Phe
		35					40					45			
Gln	Asn	Pro	Ser	Leu	Leu	Leu	Val	His	Lys	Gln	Lys	Leu	Ala	Lys	Trp
		50				55				60					
Val	Ala	Ile	Gln	Ser	Val	Ser	Ala	Trp	Pro	Glu	Lys	Arg	Gly	Glu	Ile
65					70					75				80	
Arg	Arg	Met	Met	Glu	Val	Ala	Ala	Ala	Asp	Val	Lys	Gln	Leu	Gly	Gly

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 Gln Lys Lys Thr Val Cys Ile Tyr Gly His Leu Asp Val Gln Pro Ala
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 Ala Leu Glu Asp Gly Trp Asp Ser Glu Pro Phe Thr Leu Val Glu Arg
 145 150 155 160
 Asp Gly Lys Leu Tyr Gly Arg Gly Ser Thr Asp Asp Lys Gly Pro Val
 165 170 175
 Ala Gly Trp Ile Asn Ala Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu
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 Ile Pro Val Asn Val Arg Phe Cys Leu Glu Gly Met Glu Glu Ser Gly
 195 200 205
 Ser Glu Gly Leu Asp Glu Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe
 210 215 220
 Lys Asp Val Asp Tyr Val Cys Ile Ser Asp Asn Tyr Trp Leu Gly Lys
 225 230 235 240
 Lys Lys Pro Cys Ile Thr Tyr Gly Leu Arg Gly Ile Cys Tyr Phe Phe
 245 250 255
 Ile Glu Val Glu Cys Ser Asn Lys Asp Leu His Ser Gly Val Tyr Gly
 260 265 270
 Gly Ser Val His Glu Ala Met Thr Asp Leu Ile Leu Leu Met Gly Ser
 275 280 285
 Leu Val Asp Lys Arg Gly Asn Ile Leu Ile Pro Gly Ile Asn Glu Ala
 290 295 300
 Val Ala Ala Val Thr Glu Glu Glu His Lys Leu Tyr Asp Asp Ile Asp
 305 310 315 320
 Phe Asp Ile Glu Glu Phe Ala Lys Asp Val Gly Ala Gln Ile Leu Leu
 325 330 335
 His Ser His Lys Lys Asp Ile Leu Met His Arg Trp Arg Tyr Pro Ser
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<210> 5273

<211> 4580

<212> DNA

<213> Homo sapiens

<400> 5273

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1800
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1860

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2160
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 4580

<210> 5274

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5274

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Ser	Asp	Gly	Ser	Gly	Cys	Tyr	Ser	Leu	Pro	Ser	Gln	Pro	Cys	Asn	Glu
			20					25					30		
Val	Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile
			35				40					45			
Pro	Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu
	50					55					60				
Gly	Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp

```

65          70          75          80
Ser Gly Ile Thr Tyr Leu Gly Ile Lys Ala Asn Asp Thr Gln Glu Phe
          85          90          95
Asn Leu Ser Ala Tyr Phe Glu Arg Ala Ala Asp Phe Ile Asp Gln Ala
          100          105          110
Leu Ala Gln Lys Asn Gly Arg Val Leu Val His Cys Arg Glu Gly Tyr
          115          120          125
Ser Arg Ser Pro Thr Leu Val Ile Ala Tyr Leu Met Met Arg Gln Lys
          130          135          140
Met Asp Val Lys Ser Ala Leu Ser Ile Val Arg Gln Asn Arg Glu Ile
145          150          155          160
Gly Pro Asn Asp Gly Phe Leu Ala Gln Leu Cys Gln Leu Asn Asp Arg
          165          170          175
Leu Ala Lys Glu Gly Lys Leu Lys Pro
          180          185

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<210> 5275

<211> 810

<212> DNA

<213> Homo sapiens

<400> 5275

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120
atgtcctgca tctaacgcgg tgtgaccccc gaagccgagc gagctccgga ggaatttcag
180
tatctgctac ggtaacttca tcagcccgcc aagatggcga tgcaagcggc caagagggcg
240
aacattcgac ttccacctga agtaaactcg atattgtata taagaaattt gccatacaaa
300
atcacagctg aagaaatgta tgatatattt gggaaatatg gacctattcg tcaaatacaga
360
gtggggaaca cacctgaaac tagaggaaca gcttatgtgg tctatgagga catctttgat
420
gccaagaatg catgtgatca cctatcgga ttcaatgttt gtaacagata ccttgtggtt
480
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540
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600
acattttcat ttggactaaa tcccacgaat gacaactacc accttttttt cttttttaat
660
taatactaaa tattgtgatt tcttatttga ggttcaaaat gacctgcttg aaactttgat
720
acatattgga atacattatg ttaataaact tgtagctttt tgtgaaacaa aaaaaaaaaag
780
tcgacgcggc cggcaattta gtagtagtag
810

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<210> 5276

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5276

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Val Asn Arg Ile Leu Tyr Ile Arg Asn Leu Pro Tyr Lys Ile Thr Ala
      20           25           30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
      35           40           45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
      50           55           60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
65           70           75           80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
      85           90           95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
      100          105          110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
      115          120          125

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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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120
accctgtccc tgcccttcta catctcccag tgctggaccc tcggctccgt cctggcgctc
180
acctggaccg tctggcgctt cttcctgcgg gacatcacat tgaggtacaa ggagaccg
240
tggcagaagt ggcagaacaa ggatgaccag ggcagcaccg tcggcaacgg ggaccagcac
300
cactggggc tggacgaaga cctgctgggg cctggggtgg ccgagggcga gggagcacca
360
actccaaact gacctgggac gtggctgcct cgtgagcctc ccagagccca ggctccgtg
420
gcctcctcct gtgtgagtc caccaggagc cacgtgcccg gccttgccct caaggttttt
480
tgcttttctc ctgtgcacct ggcgaggctg aaggcgaggg gtggaggagg cccagcaca
540
gcctcatctc catgtgtaca cgtgtgtacg tgtgtatgag tgtgtgtacg tgtgtatgag
600
tgtgtgtacg tg
612

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens

<400> 5278

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Ile Tyr Asp Phe Met Asp Asp Pro Lys Pro His Lys Lys Leu Gly Pro
 1           5           10           15
Gln Ala Trp Leu Val Ala Ala Ile Thr Ala Thr Glu Leu Leu Ile Val
 20           25           30
Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
 35           40           45
Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
 50           55           60
Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
 65           70           75           80
Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
 85           90           95
Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly
100          105          110
Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
115          120

```

<210> 5279

<211> 1225

<212> DNA

<213> Homo sapiens

<400> 5279

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120
ctactcccta agctgattgc aggtggccac aaagtactca tcttctccca gatggtgcgc
180
tgctcgcaca tcctagaaga ttatttaatc cagagaagat acacctatga acgtattgat
240
gggagagtac ggggaaacct gcgccaggct gccatcgacc gcttcagcaa gcctgactca
300
gaccgctttg tcttcttact gtgcaccaga gcgggaggcc tggggatcaa tctcacagct
360
gctgatacct gcatcatatt tgattctgac tggaaccac aaaatgactt gcaggctcag
420
gcccgatgtc accgcatagg ccagagcaaa gctgtgaagg tgtatcgctt catcactcga
480
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540
gttcttcaga catcaaccga aaggcgaggc ccaatgggta cagcactctc aaaaatggag
600
gtggaggacc tactccgaa aggtgcttat ggagccttaa tggatgaaga agatgaaggc
660
tccaagttct gtgaagaaga catagaccag attctgcaga gggaacgca caccatcacc
720
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780
agaacagata tttccttaga tgatcctaac ttttggcaga aatgggctaa aatagctgaa
840
ctagacactg aagcaaagaa tgaaaaggaa agcttagtga tcgaccgacc tcgcgtgaga
900

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aagcagacca aacactacaa ctcgtttgag gaagacgagc tcatggagtt ttcagagtta
960
gacagcgact cagacgaaag gcccacgaga tccaggcgcc tcaatgacaa agccaggcgc
1020
tacctccgag cggagtgttt ccgggtagag aagaacctgc tcatctttgg ctggggccgg
1080
tggaaggaca tcctgactca tggccgattc aagtggcatc tgaacgagaa ggacatggag
1140
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1225

<210> 5280

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

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		20						25					30		
Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
	35					40						45			
Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
	50					55					60				
Leu	Glu	Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Thr	Tyr	Glu	Arg	Ile	Asp
65					70				75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
			85					90						95	
Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
		100						105					110		
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
	115					120						125			
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
	130					135					140				
Arg	Ile	Gly	Gln	Ser	Lys	Ala	Val	Lys	Val	Tyr	Arg	Leu	Ile	Thr	Arg
145					150					155				160	
Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala	Ser	Leu	Lys	Leu	Gly
			165					170						175	
Leu	Asp	Lys	Ala	Val	Leu	Gln	Thr	Ser	Thr	Glu	Arg	Ala	Ala	Pro	Met
		180						185					190		
Gly	Thr	Ala	Leu	Ser	Lys	Met	Glu	Val	Glu	Asp	Leu	Leu	Arg	Lys	Gly
	195					200						205			
Ala	Tyr	Gly	Ala	Leu	Met	Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys
	210					215					220				
Glu	Glu	Asp	Ile	Asp	Gln	Ile	Leu	Gln	Arg	Arg	Thr	His	Thr	Ile	Thr
225					230					235				240	
Ile	Gln	Ser	Glu	Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val
			245						250					255	
Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
		260						265					270		
Gln	Lys	Trp	Ala	Lys	Ile	Ala	Glu	Leu	Asp	Thr	Glu	Ala	Lys	Asn	Glu

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      275      280      285
Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys
  290      295      300
His Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu
  305      310      315      320
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp
      325      330      335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn
      340      345      350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly
      355      360      365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg
      370      375      380
Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile
  385      390      395      400
Lys Ser Phe Ile Trp Glu Leu Ile
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<210> 5281
 <211> 336
 <212> DNA
 <213> Homo sapiens

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<400> 5281
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120
aggcattcct ggtactcaca ggtctgacag ccacagttgg agacacagct atttcttcag
180
aagagaaaac acaacgcgatg tcattaatga gacatcacat gggacaatca ttgtccaaag
240
aagttgcaca tgtcctcacc aaacctggag cagatcacga ttgggaaaac ctagagaaaag
300
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336

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<210> 5282
 <211> 91
 <212> PRT
 <213> Homo sapiens

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<400> 5282
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Tyr Arg Ala Gln Ala Phe Leu Val Leu Thr Gly Leu Thr Ala Thr Val
      20      25      30
Gly Asp Thr Ala Ile Ser Ser Glu Lys Thr Gln Arg Met Ser Leu
      35      40      45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val
      50      55      60
Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp
      65      70      75      80
Leu Arg Leu Leu Ile Asn Gly Asp Tyr Glu Glu

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85

90

<210> 5283
 <211> 1989
 <212> DNA
 <213> Homo sapiens

<400> 5283
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 120
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 180
 aagaggaatg gtttaattaa caccagaaac ttgatggccg agagcagaga tggctctggtg
 240
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 300
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 360
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 420
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 480
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 720
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 1080
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 1200
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 1260
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 1320
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 1380

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 1440
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 1620
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 1860
 cttcatgctg ctttaagttac cagatgaatg ctgagaaata agtaatcaca gacattttta
 1920
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 1980
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 1989

<210> 5284

<211> 258

<212> PRT

<213> Homo sapiens

<400> 5284

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Ser	Asp	Ala	Gly	Lys	Arg	Asn	Gly	Leu	Ile	Asn	Thr	Arg	Asn	Leu	Met
		20						25					30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
	35					40						45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
	50				55					60					
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65				70					75					80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
		85						90					95		
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
	100					105						110			
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
	115					120						125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
	130				135					140					
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu	
145				150				155					160		
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
		165						170					175		
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
		180					185						190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

	195		200		205										
Lys	Ala	Val	Ala	Lys	Gly	Asp	Leu	His	Gln	Ala	Ser	Thr	Ser	Ser	Arg
	210				215					220					
Arg	Ala	Leu	Phe	Leu	Ala	Val	Leu	Ser	Ile	Thr	Ile	Gly	Thr	Gly	Val
225				230					235					240	
Tyr	Val	Gly	Val	Ala	Val	Ala	Leu	Ile	Ala	Tyr	Leu	Ser	Lys	Asn	Asn
			245						250					255	

His Leu

<210> 5285
 <211> 2155
 <212> DNA
 <213> Homo sapiens

<400> 5285
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 ccctatgtgc cgttacggca gcgccggcag ctactgctcc agaagctgct gcagcgaaga
 180
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 240
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 300
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 360
 aagatcctgg agagtgttgc cgagggccga gcattgatgt cagtgaagga gatggctaag
 420
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 480
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 540
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 660
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 720
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 840
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 960
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 1080
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 1140

agtgccacca tgccgaagaa gattcagaac tttgctaaga gtgcccttgt aaagcctgtg
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 1980
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 2155

<210> 5286

<211> 628

<212> PRT

<213> Homo sapiens

<400> 5286

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Ala	Arg	Thr	Asp	Glu	Val	Pro	Ala	Gly	Gly	Ser	Arg	Ser	Glu	Ala	Glu
			20					25					30		
Asp	Glu	Asp	Asp	Glu	Asp	Tyr	Val	Pro	Tyr	Val	Pro	Leu	Arg	Gln	Arg
		35				40						45			
Arg	Gln	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Gln	Arg	Arg	Arg	Lys	Gly	Ala
		50				55				60					
Ala	Glu	Glu	Gln	Gln	Asp	Ser	Gly	Ser	Glu	Pro	Arg	Gly	Asp	Glu	
65				70					75				80		
Asp	Asp	Ile	Pro	Leu	Gly	Pro	Gln	Ser	Asn	Val	Ser	Leu	Leu	Asp	Gln
				85				90					95		
His	Gln	His	Leu	Lys	Glu	Lys	Ala	Glu	Ala	Arg	Lys	Glu	Ser	Ala	Lys

100										105					110				
Glu	Lys	Gln	Leu	Lys	Glu	Glu	Glu	Lys	Ile	Leu	Glu	Ser	Val	Ala	Glu				
115				120				125											
Gly	Arg	Ala	Leu	Met	Ser	Val	Lys	Glu	Met	Ala	Lys	Gly	Ile	Thr	Tyr				
130				135				140											
Asp	Asp	Pro	Ile	Lys	Thr	Ser	Trp	Thr	Pro	Pro	Arg	Tyr	Val	Leu	Ser				
145				150				155				160							
Met	Ser	Glu	Glu	Arg	His	Glu	Arg	Val	Arg	Lys	Lys	Tyr	His	Ile	Leu				
165				170				175											
Val	Glu	Gly	Asp	Gly	Ile	Pro	Pro	Pro	Ile	Lys	Ser	Phe	Lys	Glu	Met				
180				185				190											
Lys	Phe	Pro	Ala	Ala	Ile	Leu	Arg	Gly	Leu	Lys	Lys	Lys	Gly	Ile	His				
195				200				205											
His	Pro	Thr	Pro	Ile	Gln	Ile	Gln	Gly	Ile	Pro	Thr	Ile	Leu	Ser	Gly				
210				215				220											
Arg	Asp	Met	Ile	Gly	Ile	Ala	Phe	Thr	Gly	Ser	Gly	Lys	Thr	Leu	Val				
225				230				235				240							
Phe	Thr	Leu	Pro	Val	Ile	Met	Phe	Cys	Leu	Glu	Gln	Glu	Lys	Arg	Leu				
245				250				255											
Pro	Phe	Ser	Lys	Arg	Glu	Gly	Pro	Tyr	Gly	Leu	Ile	Ile	Cys	Pro	Ser				
260				265				270											
Arg	Glu	Leu	Ala	Arg	Gln	Thr	His	Gly	Ile	Leu	Glu	Tyr	Tyr	Cys	Arg				
275				280				285											
Leu	Leu	Gln	Glu	Asp	Ser	Ser	Pro	Leu	Leu	Arg	Cys	Ala	Leu	Cys	Ile				
290				295				300											
Gly	Gly	Met	Ser	Val	Lys	Glu	Gln	Met	Glu	Thr	Ile	Arg	His	Gly	Val				
305				310				315				320							
His	Met	Met	Val	Ala	Thr	Pro	Gly	Arg	Leu	Met	Asp	Leu	Leu	Gln	Lys				
325				330				335											
Lys	Met	Val	Ser	Leu	Asp	Ile	Cys	Arg	Tyr	Leu	Ala	Leu	Asp	Glu	Ala				
340				345				350											
Asp	Arg	Met	Ile	Asp	Met	Gly	Phe	Glu	Gly	Asp	Ile	Arg	Thr	Ile	Phe				
355				360				365											
Ser	Tyr	Phe	Lys	Gly	Gln	Arg	Gln	Thr	Leu	Leu	Phe	Ser	Ala	Thr	Met				
370				375				380											
Pro	Lys	Lys	Ile	Gln	Asn	Phe	Ala	Lys	Ser	Ala	Leu	Val	Lys	Pro	Val				
385				390				395				400							
Thr	Ile	Asn	Val	Gly	Arg	Ala	Gly	Ala	Ala	Ser	Leu	Asp	Val	Ile	Gln				
405				410				415											
Glu	Val	Glu	Tyr	Val	Lys	Glu	Glu	Ala	Lys	Met	Val	Tyr	Leu	Leu	Glu				
420				425				430											
Cys	Leu	Gln	Lys	Thr	Pro	Pro	Pro	Val	Leu	Ile	Phe	Ala	Glu	Lys	Lys				
435				440				445											
Ala	Asp	Val	Asp	Ala	Ile	His	Glu	Tyr	Leu	Leu	Leu	Lys	Gly	Val	Glu				
450				455				460											
Ala	Val	Ala	Ile	His	Gly	Gly	Lys	Asp	Gln	Glu	Glu	Arg	Thr	Lys	Ala				
465				470				475				480							
Ile	Glu	Ala	Phe	Arg	Glu	Gly	Lys	Lys	Asp	Val	Leu	Val	Ala	Thr	Asp				
485				490				495											
Val	Ala	Ser	Lys	Gly	Leu	Asp	Phe	Pro	Ala	Ile	Gln	His	Val	Ile	Asn				
500				505				510											
Tyr	Asp	Met	Pro	Glu	Glu	Ile	Glu	Asn	Tyr	Val	His	Arg	Ile	Gly	Arg				
515				520				525											
Thr	Gly	Arg	Ser	Gly	Asn	Thr	Gly	Ile	Ala	Thr	Thr	Phe	Ile	Asn	Lys				

530 535 540
 Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu
 545 550 555 560
 Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp
 565 570 575
 Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly
 580 585 590
 Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln
 595 600 605
 Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser
 610 615 620
 Ser Met Asp Phe
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<210> 5287

<211> 581

<212> DNA

<213> Homo sapiens

<400> 5287

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 120
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 180
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 300
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 420
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 480
 aatgtacaag aactgcttcc tgcagcctgt ctgcttcagt tgaaaggtgt gaaacaagcc
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<210> 5288

<211> 193

<212> PRT

<213> Homo sapiens

<400> 5288

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 Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro
 35 40 45
 Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

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      50              55              60
Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn
65              70              75              80
Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu
      85              90              95
Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala
      100             105             110
Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys
      115             120             125
Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu
      130             135             140
Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu
145             150             155             160
Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly
      165             170             175
Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser
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<210> 5289
 <211> 361
 <212> DNA
 <213> Homo sapiens

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<400> 5289
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180
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240
ggatgttcag ctaaaagtaa aaacctactt gcttggaaact gatttgtcta tattcaaata
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361

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<210> 5290
 <211> 95
 <212> PRT
 <213> Homo sapiens

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<400> 5290
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Glu Asp Thr Ala Ser Ala Ser Glu Gly Glu Val Tyr Asp Arg Val Leu
20     25     30
Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His
35     40     45
Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr

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50		55		60											
Leu	Leu	Gly	Thr	Asp	Leu	Ser	Ile	Phe	Lys	Tyr	Asp	Asp	Phe	Ile	Phe
65		70		75										80	
Val	Leu	Asp	Ile	Ile	Ser	Arg	Leu	Met	Gln	Val	Gly	Glu	Glu	Phe	
		85						90					95		

<210> 5291
 <211> 767
 <212> DNA
 <213> Homo sapiens

<400> 5291
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 120
 tgctgagggg cagggaccat ctctctctcc tcttctctct cctccctggc tttggtctcc
 180
 tcttctctgg cctctctctc tgcccgtca aacttgcccc tcacacctgt gttgccccg
 240
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 300
 gcagggctgg atggggagag caggggctgg agtggaggca gggggcagcc ccacccaggc
 360
 ggtgccagag gccaaaggca cacggtggcg gccccggcgn gcagggctcg ggcgggtgca
 420
 gagccacatg cagcggcagc ccctcggcgc ctgccccact caccaccacc ccgagctggg
 480
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 660
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 767

<210> 5292
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 5292
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 20 25 30
 Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro
 35 40 45
 Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu
 50 55 60
 Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

65					70					75				80
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg
				85					90				95	
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His
			100					105				110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp
		115					120					125		
Gln	Ala	Pro	Arg	Leu	Lys	Arg	Thr	Val	Pro	Val	Arg	Arg	Ser	
	130					135					140			

<210> 5293

<211> 1428

<212> DNA

<213> Homo sapiens

<400> 5293

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120
gcttcactgt tgctcttggc aacatccact tccgggagcg agtgccgttt cccccgtca
180
ccgcgggcta gggagcgtgg gattccggac tgtgagcggc tgtagtgcg tcgcagctgc
240
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300
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360
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540
gaattgaaat tgaaggatga atggggtgaa aaatgcgtac ccagcggagg tgcaagtgtt
600
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660
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720
gtctgtgtta ccatggagat ggtgaaagat gccttggacc agcttcgagg cgcggtgatg
780
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900
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960
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1020
cctattatta gcagtgagga gcagaagcag ctgatgctgt actatcacag aagacaagag
1080
gagctcaaga gattggaaga aaatgatgat gatgcctatt taaactcacc atgggcggat
1140

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 1260
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 1320
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 1380
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 1428

<210> 5294

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5294

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			20					25					30		
Arg	Val	Tyr	Asn	Gly	Arg	Leu	Lys	Val	Gln	Arg	Leu	Cys	Ser	Glu	Met
		35				40						45			
Glu	Glu	Leu	Ala	Glu	His	Gly	Ile	Phe	Leu	Pro	Pro	Asn	Met	Gln	Gly
	50					55					60				
Leu	Thr	Asp	Asp	Gln	Ile	Glu	Glu	Leu	Lys	Leu	Lys	Asp	Glu	Trp	Gly
65					70					75				80	
Glu	Lys	Cys	Val	Pro	Ser	Gly	Gly	Ala	Val	Phe	Lys	Lys	Asp	Asp	Ile
			85					90						95	
Gly	Arg	Arg	Asn	Gly	Gln	Ala	Pro	Asn	Glu	Lys	Met	Lys	Gln	Val	Leu
			100					105					110		
Lys	Lys	Thr	Ile	Glu	Glu	Ala	Lys	Ala	Ile	Ile	Ser	Lys	Lys	Gln	Val
		115				120							125		
Glu	Ala	Gly	Val	Cys	Val	Thr	Met	Glu	Met	Val	Lys	Asp	Ala	Leu	Asp
	130					135					140				
Gln	Leu	Arg	Gly	Ala	Val	Met	Ile	Val	Tyr	Pro	Met	Gly	Leu	Pro	Pro
145				150					155					160	
Tyr	Asp	Pro	Ile	Arg	Met	Glu	Phe	Glu	Asn	Lys	Glu	Asp	Leu	Ser	Gly
			165					170					175		
Thr	Gln	Ala	Gly	Leu	Asn	Val	Ile	Lys	Glu	Ala	Glu	Ala	Gln	Leu	Trp
		180						185					190		
Trp	Ala	Ala	Lys	Glu	Leu	Arg	Arg	Thr	Lys	Lys	Leu	Ser	Asp	Tyr	Val
		195				200						205			
Gly	Lys	Asn	Glu	Lys	Thr	Lys	Ile	Ile	Ala	Lys	Ile	Gln	Gln	Arg	Gly
	210					215					220				
Gln	Gly	Ala	Pro	Ala	Arg	Glu	Pro	Ile	Ile	Ser	Ser	Glu	Glu	Gln	Lys
225				230						235				240	
Gln	Leu	Met	Leu	Tyr	Tyr	His	Arg	Arg	Gln	Glu	Glu	Leu	Lys	Arg	Leu
			245					250						255	
Glu	Glu	Asn	Asp	Asp	Asp	Ala	Tyr	Leu	Asn	Ser	Pro	Trp	Ala	Asp	Asn
		260						265					270		
Thr	Ala	Leu	Lys	Arg	His	Phe	His	Gly	Val	Lys	Asp	Ile	Lys	Trp	Arg
		275					280						285		
Pro	Arg														

290

<210> 5295

<211> 1451

<212> DNA

<213> Homo sapiens

<400> 5295

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120
gacagtaacg agcagtgtctg gccggggcccc actttcagag ggggcggaag ggcattctga
180
cacgtgtcat atggtaagag ggcattccac tcaccaggc ctggtgcagg actctgcaag
240
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<211> 1339

<212> PRT

<213> Homo sapiens

<400> 5302

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Ser	Gly	Leu	Pro	His	Val	Ala	Phe	Ser	Ser	Ser	Ser	Ser	Ile	Ser	Gly

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 Phe Gly Asn Arg Lys Gln Ile Ser Ala Ile Ala Thr Gln Gly Arg Tyr
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 Ser Ser Ser Asp Trp Val Thr Gln Tyr Arg Met Leu Tyr Ser Asp Thr
 115 120 125
 Gly Arg Asn Trp Lys Pro Tyr His Gln Asp Gly Asn Ile Trp Ala Phe
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 Pro Gly Asn Ile Asn Ser Asp Gly Val Val Arg His Glu Leu Gln His
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 Pro Ile Ile Ala Arg Tyr Val Arg Ile Val Pro Leu Asp Trp Asn Gly
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 Glu Gly Arg Ile Gly Leu Arg Ile Glu Val Tyr Gly Cys Ser Tyr Trp
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 Lys Thr Ser Glu Ser Glu Gly Val Ile Leu His Gly Glu Gly Gln Gln
 225 230 235 240
 Gly Asp Tyr Ile Thr Leu Glu Leu Lys Lys Ala Lys Leu Val Leu Ser
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 260 265 270
 Val Met Thr Gly Ser Leu Leu Asp Asp His His Trp His Ser Val Val
 275 280 285
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 Gln His Phe Arg Thr Asn Gly Glu Phe Asp Tyr Leu Asp Leu Asp Tyr
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 Glu Ile Thr Phe Gly Gly Ile Pro Phe Ser Gly Lys Pro Ser Ser Ser
 325 330 335
 Ser Arg Lys Asn Phe Lys Gly Cys Met Glu Ser Ile Asn Tyr Asn Gly
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 Val Asn Ile Thr Asp Leu Ala Arg Arg Lys Lys Leu Glu Pro Ser Asn
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 Val Gly Asn Leu Ser Phe Ser Cys Val Glu Pro Tyr Thr Val Pro Val
 370 375 380
 Phe Phe Asn Ala Thr Ser Tyr Leu Glu Val Pro Gly Arg Leu Asn Gln
 385 390 395 400
 Asp Leu Phe Ser Val Ser Phe Gln Phe Arg Thr Trp Asn Pro Asn Gly
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 Asp Leu Thr Glu Ser Lys Val Gly Val His Ile Asn Ile Thr Gln Thr
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 Lys Met Ser Gln Ile Asp Ile Ser Ser Gly Ser Gly Leu Asn Asp Gly
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 Gln Trp His Glu Val Arg Phe Leu Ala Lys Glu Asn Phe Ala Ile Leu
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Met	Asn	Asn	Ser	Ser	His	Ser	Val	Leu	Gln	Pro	Ser	Phe	Gln	Gly	Cys						
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Met	Gln	Leu	Ile	Gln	Val	Asp	Asp	Gln	Leu	Val	Asn	Leu	Tyr	Glu	Val						
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Cys	Ser	Gln	Thr	Trp	Asp	Ser	Phe	Lys	Cys	Thr	Cys	Asp	Glu	Thr	Gly						
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Tyr	Ser	Gly	Ala	Thr	Cys	His	Asn	Ser	Ile	Tyr	Glu	Pro	Ser	Cys	Glu						
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Glu	Asp	Lys	Val	Trp	Thr	Ile	Val	Ser	His	Asp	Leu	Gln	Met	Gln	Thr						
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Tyr	Ser	Ala	Ser	Met	Asp	Gln	Ile	Ser	Ala	Ile	Thr	Asp	Ser	Ala	Glu						
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Tyr	Cys	Glu	Gln	Tyr	Val	Ser	Tyr	Phe	Cys	Lys	Met	Ser	Arg	Leu	Leu						
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Ala	Cys	Gly	Ile	Glu	Arg	Asn	Cys	Thr	Asp	Pro	Lys	Tyr	Tyr	Cys	Asn						
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Cys	Asp	Ala	Asp	Tyr	Lys	Gln	Trp	Arg	Lys	Asp	Ala	Gly	Phe	Leu	Ser						
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Tyr	Lys	Asp	His	Leu	Pro	Val	Ser	Gln	Val	Val	Val	Gly	Asp	Thr	Asp						
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Phe	Tyr	Phe	Lys	Thr	Leu	Thr	Pro	Trp	Gly	Val	Phe	Leu	Glu	Asn	Met						
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Gly	Lys	Glu	Asp	Phe	Ile	Lys	Leu	Glu	Leu	Lys	Ser	Ala	Thr	Glu	Val						
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Ile Arg Ser Leu Arg Met Asn Gly Val Thr Leu Asp Leu Glu Glu Arg		
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Ala Lys Val Thr Ser Gly Phe Ile Ser Gly Cys Ser Gly His Cys Thr		
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Ser Tyr Gly Thr Asn Cys Glu Asn Gly Gly Lys Cys Leu Glu Arg Tyr		
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His Gly Tyr Ser Cys Asp Cys Ser Asn Thr Ala Tyr Asp Gly Thr Phe		
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Cys Asn Lys Asp Val Gly Ala Phe Phe Glu Glu Gly Met Trp Leu Arg		
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Tyr Asn Phe Gln Ala Pro Ala Thr Asn Ala Arg Asp Ser Ser Ser Arg		
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Val Asp Asn Ala Pro Asp Gln Gln Asn Ser His Pro Asp Leu Ala Gln		
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Glu Glu Ile Arg Phe Ser Phe Ser Thr Thr Lys Ala Pro Cys Ile Leu		
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Leu Tyr Ile Ser Ser Phe Thr Thr Asp Phe Leu Ala Val Leu Val Lys		
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Pro Thr Gly Ser Leu Gln Ile Arg Tyr Asn Leu Gly Gly Thr Arg Glu		
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Pro Tyr Asn Ile Asp Val Asp His Arg Asn Met Ala Asn Gly Gln Pro		
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His Ser Val Asn Ile Thr Arg His Glu Lys Thr Ile Phe Leu Lys Leu		
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Asp His Tyr Pro Ser Val Ser Tyr His Leu Pro Ser Ser Ser Asp Thr		
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Leu Phe Asn Ser Pro Lys Ser Leu Phe Leu Gly Lys Val Ile Glu Thr		
1155	1160	1165
Gly Lys Ile Asp Gln Glu Ile His Lys Tyr Asn Thr Pro Gly Phe Thr		
1170	1175	1180
Gly Cys Leu Ser Arg Val Gln Phe Asn Gln Ile Ala Pro Leu Lys Ala		
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Ala Leu Arg Gln Thr Asn Ala Ser Ala His Val His Ile Gln Gly Glu		
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Leu Val Glu Ser Asn Cys Gly Ala Ser Pro Leu Thr Leu Ser Pro Met		
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Ser Ser Ala Thr Asp Pro Trp His Leu Asp His Leu Asp Ser Ala Ser		
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Ala Asp Phe Pro Tyr Asn Pro Gly Gln Gly Gln Ala Ile Arg Asn Gly		
1250	1255	1260
Val Asn Arg Asn Ser Ala Ile Ile Gly Gly Val Ile Ala Val Val Ile		
1265	1270	1275
Phe Thr Ile Leu Cys Thr Leu Val Phe Leu Ile Arg Tyr Met Phe Arg		
1285	1290	1295
His Lys Gly Thr Tyr His Thr Asn Glu Ala Lys Gly Ala Glu Ser Ala		
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 <211> 334
 <212> DNA
 <213> Homo sapiens

<400> 5303
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 Glu Gly Leu Ala Asp Ser Gly Pro Gly Gly Ala Gly Arg Pro Ala Ala
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<210> 5306

<211> 62

<212> PRT

<213> Homo sapiens

<400> 5306

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Gln	Leu	Ala	Gly	Pro	Ser	Leu	Trp	Leu	Glu	Leu	Val	Cys	Val	Tyr	Leu
			20					25					30		
Ile	Lys	Ser	His	Arg	Cys	Leu	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
		35					40				45				
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<210> 5307

<211> 1551

<212> DNA

<213> Homo sapiens

<400> 5307

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<210> 5308

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5308

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Leu	Leu	Ile	Asp	Leu	Thr	Trp	Thr	His	Arg	Gly	Gly	Lys	Thr	Cys	Gly
			20					25					30		
Asp	His	His	Arg	Gly	His	Gly	Pro	Thr	Ser	Val	Ile	Trp	Glu	Thr	Gly
		35					40					45			
Leu	Gly	Arg	Gly	Gly	Asp	Phe	Pro	Lys	Ser	Pro	Ser	Ile	His	Asp	Arg
		50				55					60				
Gly	Arg	Ala	Trp	Glu	Leu	Gly	Thr	Gln	Gly	Ser	Ser	Lys	Arg	Ser	Arg
65					70				75				80		
Ser	Leu	Cys	Tyr	Pro	Gln	Ile	His	Lys	Leu	Arg	Ile	Thr	Cys	Ile	His
			85					90					95		
Phe	Pro	Pro	Pro	Trp	Thr	Leu	Cys	Phe	Glu	Leu	Phe	Cys	Leu	Pro	Asp
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<210> 5309

<211> 2078

<212> DNA

<213> Homo sapiens

<400> 5309

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960
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<210> 5310

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5310

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			20					25					30		
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
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Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
	50					55					60				
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Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
			85						90					95	
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
			100					105					110		
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
		115					120					125			
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
	130					135					140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
145					150				155					160	
Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
			165					170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
		180					185					190			
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
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Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

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Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser
225              230              235              240
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn
      245              250              255
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser
      260              265              270
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr
      275              280              285
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala
      290              295              300
Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln
305              310              315              320
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala
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Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly
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Gln Cys Thr Val Thr Glu Val
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<210> 5311
 <211> 572
 <212> DNA
 <213> Homo sapiens

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 420
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 572

<210> 5312
 <211> 190
 <212> PRT
 <213> Homo sapiens

<400> 5312
 Cys His Cys Glu Gly Asp Asp Glu Ser Pro Leu Ile Thr Pro Cys His

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Cys Thr Gly Ser Leu His Phe Val His Gln Ala Tyr Leu Gln Gln Trp
           20           25           30
Ile Lys Ser Ser Asp Thr Arg Cys Cys Glu Leu Cys Lys Tyr Glu Phe
           35           40           45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln
           50           55           60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His
65           70           75           80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp
           85           90           95
Arg Pro Ala Glu Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu
           100          105          110
Trp Pro Phe Trp Thr Lys Leu Val Val Ala Ile Gly Phe Thr Arg
           115          120          125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp
           130          135          140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro
145          150          155          160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro
           165          170          175
Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp
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<210> 5313

<211> 322

<212> DNA

<213> Homo sapiens

<400> 5313

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322

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<210> 5314

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5314

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Arg Gly Arg Arg Glu Glu Glu Gly Asp Lys Arg Ser Val Ala Pro Gln
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Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly
           20           25           30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser

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<210> 5316

<211> 544

<212> PRT

<213> Homo sapiens

<400> 5316

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Gln	Lys	Leu	Asn	Cys	Arg	Gln	Ile	Pro	Lys	Leu	Leu	Arg	Gln	Leu	Gln
			20					25					30		
Glu	Phe	Thr	Asp	Leu	Gly	His	Arg	Leu	Asp	Cys	Leu	Asp	Leu	Lys	Gly
			35				40				45				
Glu	Lys	Leu	Asp	Tyr	Lys	Thr	Cys	Glu	Ala	Leu	Glu	Glu	Val	Phe	Lys

50	55	60
Arg Leu Gln Phe Lys Val	Val Asp Leu Glu Gln Thr Asn Leu Asp Glu	
65	70	75
Asp Gly Ala Ser Ala Leu Phe Asp Met Ile Glu Tyr Tyr Glu Ser Ala		80
	85	90
Thr His Leu Asn Ile Ser Phe Asn Lys His Ile Gly Thr Arg Gly Trp		95
	100	105
Gln Ala Ala Ala His Met Met Arg Lys Thr Ser Cys Leu Gln Tyr Leu		110
	115	120
Asp Ala Arg Asn Thr Pro Leu Leu Asp His Ser Ala Pro Phe Val Ala		125
	130	135
Arg Ala Leu Arg Ile Arg Ser Ser Leu Ala Val Leu His Leu Glu Asn		140
145	150	155
Ala Ser Leu Ser Gly Arg Pro Leu Met Leu Leu Ala Thr Ala Leu Lys		160
	165	170
Met Asn Met Asn Leu Arg Glu Leu Tyr Leu Ala Asp Asn Lys Leu Asn		175
	180	185
Gly Leu Gln Asp Ser Ala Gln Leu Gly Asn Leu Leu Lys Phe Asn Cys		190
	195	200
Ser Leu Gln Ile Leu Asp Leu Arg Asn Asn His Val Leu Asp Ser Gly		205
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Leu Ala Tyr Ile Cys Glu Gly Leu Lys Glu Gln Arg Lys Gly Leu Val		220
225	230	235
Thr Leu Val Leu Trp Asn Asn Gln Leu Thr His Thr Gly Met Ala Phe		240
	245	250
Leu Gly Met Thr Leu Ser His Thr Gln Ser Leu Glu Thr Leu Asn Leu		255
	260	265
Gly His Asn Pro Ile Gly Asn Glu Gly Val Arg His Leu Lys Asn Gly		270
	275	280
Leu Ile Ser Asn Arg Ser Val Leu Arg Leu Gly Leu Ala Ser Thr Lys		285
	290	295
Leu Thr Cys Glu Gly Ala Val Ala Val Ala Glu Phe Ile Ala Glu Ser		300
305	310	315
Pro Arg Leu Leu Arg Leu Asp Leu Arg Glu Asn Glu Ile Lys Thr Gly		320
	325	330
Gly Leu Met Ala Leu Ser Leu Ala Leu Lys Val Asn His Ser Leu Leu		335
	340	345
Arg Leu Asp Leu Asp Arg Glu Pro Lys Lys Glu Ala Val Lys Ser Phe		350
	355	360
Ile Glu Thr Gln Lys Ala Leu Leu Ala Glu Ile Gln Asn Gly Cys Lys		365
	370	375
Arg Asn Leu Val Leu Ala Arg Glu Arg Glu Glu Lys Glu Gln Pro Pro		380
385	390	395
Gln Leu Ser Ala Ser Met Pro Glu Thr Thr Ala Thr Glu Pro Gln Pro		400
	405	410
Asp Asp Glu Pro Ala Ala Gly Val Gln Asn Gly Ala Pro Ser Pro Ala		415
	420	425
Pro Ser Pro Asp Ser Asp Ser Asp Ser Asp Ser Asp Gly Glu Glu Glu		430
	435	440
Glu Glu Glu Glu Gly Glu Arg Asp Glu Thr Pro Ser Gly Ala Ile Asp		445
	450	455
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<400> 5318
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 1             5             10             15
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Pro Thr Ser Pro Thr Ser Ala Ala Ser Arg Ala Cys Gly Ser Arg Gly
      35      40      45
Ala Ala Thr Trp Trp Ser Arg Ser Ser Gly Ser Thr Thr Leu Arg Arg
      50      55      60
Pro Ser Trp Ala Ser Ser Ser Thr Arg Ala Ser Thr Gly Thr Arg Ser
65      70      75      80
Pro Ala Ala Ala Ser Arg Arg Pro Cys Gly Ser Pro Ala Arg Gly Arg
      85      90      95
Thr Ser Trp Ser Ala Arg Tyr Thr Ser Pro Arg Met Trp Thr Lys Met
      100      105      110
Thr Cys Arg Arg Cys Arg Thr Ser Ala Trp Trp Trp Ala Trp Ser Ser
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Met Ser Arg Cys
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<210> 5319

<211> 4231

<212> DNA

<213> Homo sapiens

<400> 5319

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960

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<211> 96

<212> PRT

<213> Homo sapiens

<400> 5320

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Pro	Ala	Ser	Leu	Val	Leu	Asn	Phe	Val	Leu	Phe	Cys	Phe	Val	Leu	Arg
			20					25					30		
Arg	Ser	Leu	Ala	Leu	Xaa	Thr	Gln	Ala	Gly	Val	Leu	Trp	Leu	Asp	Leu
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Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Arg	Phe	Lys	Gln	Phe	Ser	Cys	Pro
		50				55					60				
Ser	Leu	Pro	Ser	Ser	Trp	Asp	Tyr	Arg	Cys	Met	Pro	Pro	Trp	Leu	Ala
65					70				75					80	
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				85					90					95	

<210> 5321

<211> 6324

<212> DNA

<213> Homo sapiens

<400> 5321

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<211> 209

<212> PRT

<213> Homo sapiens

<400> 5322

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 <212> DNA
 <213> Homo sapiens

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<210> 5325
 <211> 938
 <212> DNA
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<400> 5325

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<212> PRT

<213> Homo sapiens

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 Gly Ser Ala Gly Cys Val Leu Ala Gly Arg Leu Thr Glu Asp Pro Ala
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 Glu Arg Val Leu Leu Leu Glu Ala Gly Pro Lys Asp Val Arg Ala Gly
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 Ser Lys Arg Leu Ser Trp Lys Ile His Met Pro Ala Ala Leu Val Ala
 85 90 95
 Asn Leu Cys Asp Asp Arg Tyr Asn Trp Cys Tyr His Thr Glu Val Gln

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Glu Asp Tyr Glu Arg Trp Gln Arg Gln Gly Ala Arg Gly Trp Asp Tyr
145      150      155      160
Ala His Cys Leu Pro Tyr Phe Arg Lys Ala Gln Gly His Xaa Ala Gly
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Arg Gln Pro Val Pro Gly Arg Asp Gly Pro Leu Arg Val Ser Arg Gly
      180      185      190
Lys Thr Asn His Pro Leu His Cys Ala Phe Leu Glu Ala Thr Gln Gln
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<210> 5327

<211> 2084

<212> DNA

<213> Homo sapiens

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<210> 5328

<211> 694

<212> PRT

<213> Homo sapiens

<400> 5328

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Asp Gly Lys Leu Ser Phe Thr Ile Phe Asn Tyr Glu Ser Ile Val Trp		110
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Gly Tyr Val Cys Glu Cys Pro Glu Gly Phe Met Gly Leu Asp Cys Arg		380
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Glu Arg Val Xaa Pro Met Thr Val Ser Ala Ala Thr Glu Ala Asp Ala		400
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Thr Gln Cys Pro Asp Gly Gly Tyr Cys Met Glu His Gly Gly Ser Tyr		445
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<211> 2582

<212> DNA

<213> Homo sapiens

<400> 5329

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<400> 5330
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<212> DNA

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<212> PRT

<213> Homo sapiens

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Met	Ile	Thr	Asp	Ser	Gly	Lys	Phe	Ser	Gly	Ser	Ser	Pro	Ala	Pro	Pro
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5334

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 Arg Pro His Gly Asp Arg Lys Ser Cys Glu Met Gly Leu Gln Leu Arg
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 Gln Thr Phe Glu Ala Ala Ile Leu Thr Gln Leu His Pro Arg Ser Gln
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 Ile Asp Ile Tyr Val Gln Val Leu Gln Ala Asp Gly Gly Thr Tyr Ala
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 Ala Cys Val Asn Ala Ala Thr Leu Ala Val Leu Asp Ala Gly Ile Pro
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 Met Arg Asp Phe Val Cys Ala Cys Ser Ala Gly Phe Val Asp Gly Thr
 180 185 190
 Ala Leu Ala Asp Leu Ser His Val Glu Glu Ala Ala Gly Gly Pro Gln
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 Leu Ala Leu Ala Leu Leu Pro Ala Ser Gly Gln Ile Ala Leu Leu Glu
 210 215 220
 Met Asp Ala Arg Leu His Glu Asp His Leu Glu Arg Val Leu Glu Ala
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<210> 5335

<211> 4282

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5336

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Thr	Cys	Gln	Val	Leu	Val	Lys	Asp	Phe	Thr	Phe	Glu	Gly	Phe	Ser	Arg
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4510

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Glu Glu Val Glu Glu Arg Met Trp Ala Ala Ile Gln Ser Trp Asp Ile		655
	660	665
Asn Ser Arg Arg Asn Ile Asn Tyr Arg Ser Phe Glu Pro Ile Leu Arg		670
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Leu Leu Pro Gln Gly Ile Ser Pro Val Ser Gln His Trp Ala Thr Trp		685
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<211> 2742

<212> DNA

<213> Homo sapiens

<400> 5337

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<212> PRT

<213> Homo sapiens

<400> 5338

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			20					25					30		
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Asn	Lys	Asn	Phe	Pro	Asn	Gln	Ser	Trp	Asn	Ser	Ser	Leu	Ser	Gly	
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Pro	Arg	Leu	Leu	Phe	Lys	Ser	Gln	Ala	Asn	Gln	Asn	Tyr	Ala	Gly	Ala
				85				90					95		
Lys	Phe	Ser	Glu	Pro	Pro	Ser	Pro	Ser	Val	Leu	Pro	Lys	Pro	Pro	Ser
			100					105					110		
His	Trp	Val	Pro	Val	Ser	Phe	Asn	Pro	Ser	Asp	Lys	Glu	Ile	Met	Thr
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<212> DNA

<213> Homo sapiens

<400> 5339

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<213> Homo sapiens

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			20					25					30		
Leu	Leu	Ser	Gly	Asp	Glu	Tyr	Asn	Gln	Asp	Phe	Asp	Ser	Thr	Asn	Phe
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Glu	Glu	Ser	Gln	Asp	Glu	Asp	Asp	Ala	Leu	Asn	Glu	Ile	Val	Arg	Cys
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Cys	Leu	Cys	Trp	Gln	His	Ser	Val	Cys	Met	Gly	Leu	Leu	Glu	Glu	Ser
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<211> 690

<212> PRT

<213> Homo sapiens

<400> 5342

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 Ser Leu Ala Ala Ala Ala Leu Ala Leu Thr Leu Leu Pro Ala Arg Leu
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 Pro Pro Gly Leu Arg Trp Leu Pro Ala Asp Val Ile Phe Leu Ala Lys
 85 90 95
 Ile Leu His Leu Gly Leu Lys Ile Arg Gly Cys Leu Ser Arg Gln Pro

4517

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<211> 752

<212> DNA

<213> Homo sapiens

<400> 5343

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<210> 5345
 <211> 1912
 <212> DNA
 <213> Homo sapiens

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<211> 534

<212> PRT

<213> Homo sapiens

<400> 5346

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Gln	Asp	Gly	Met	Pro	Gly	Arg	Ser	Trp	Ala	Ser	Lys	Arg	Val	Ser	Glu
			20					25					30		
Ser	Val	Lys	Ala	Leu	Leu	Leu	Lys	Gly	Lys	Ala	Pro	Val	Asp	Pro	Glu
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Cys	Thr	Ala	Lys	Val	Gly	Lys	Ala	His	Val	Tyr	Cys	Glu	Gly	Asn	Asp

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Val	Tyr	Asp	Val	Met	Leu	Asn	Gln	Thr	Asn	Leu	Gln	Phe	Asn	Asn
65					70					75				80
Lys	Tyr	Tyr	Leu	Ile	Gln	Leu	Leu	Glu	Asp	Asp	Ala	Gln	Arg	Asn
				85					90					95
Ser	Val	Trp	Met	Arg	Trp	Gly	Arg	Val	Gly	Lys	Met	Gly	Gln	His
			100					105					110	
Leu	Val	Ala	Cys	Ser	Gly	Asn	Leu	Asn	Lys	Ala	Lys	Glu	Ile	Phe
		115					120					125		
Lys	Lys	Phe	Leu	Asp	Lys	Thr	Lys	Asn	Asn	Trp	Glu	Asp	Arg	Glu
		130				135					140			
Phe	Glu	Lys	Val	Pro	Gly	Lys	Tyr	Asp	Met	Leu	Gln	Met	Asp	Tyr
145					150				155					160
Thr	Asn	Thr	Gln	Asp	Glu	Glu	Glu	Thr	Lys	Lys	Glu	Glu	Ser	Leu
				165					170					175
Ser	Pro	Leu	Lys	Pro	Glu	Ser	Gln	Leu	Asp	Leu	Arg	Val	Gln	Glu
			180					185					190	
Ile	Lys	Leu	Ile	Cys	Asn	Val	Gln	Ala	Met	Glu	Glu	Met	Met	Met
		195					200					205		
Met	Lys	Tyr	Asn	Thr	Lys	Lys	Ala	Pro	Leu	Gly	Lys	Leu	Thr	Val
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Arg	Ala	Gly	Gln	His	Gly	Arg	Ala	Leu	Met	Glu	Ala	Cys	Asn	Glu
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Tyr	Thr	Arg	Ile	Pro	His	Asp	Phe	Gly	Leu	Arg	Thr	Pro	Pro	Leu
			260					265					270	
Arg	Thr	Gln	Lys	Glu	Leu	Ser	Glu	Lys	Ile	Gln	Leu	Leu	Glu	Ala
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	290					295				300				
Pro	Glu	His	Pro	Leu	Asp	Gln	His	Tyr	Arg	Asn	Leu	His	Cys	Ala
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Arg	Pro	Leu	Asp	His	Glu	Ser	Tyr	Glu	Phe	Lys	Val	Ile	Ser	Gln
				325					330					335
Leu	Gln	Ser	Thr	His	Ala	Pro	Thr	His	Ser	Asp	Tyr	Thr	Met	Thr
			340					345					350	
Leu	Asp	Leu	Phe	Glu	Val	Glu	Lys	Asp	Gly	Glu	Lys	Glu	Ala	Phe
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Glu	Asp	Leu	His	Asn	Arg	Met	Leu	Leu	Trp	His	Gly	Ser	Arg	Met
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Asn	Trp	Val	Gly	Ile	Leu	Ser	His	Gly	Leu	Arg	Ile	Ala	Pro	Pro
385					390					395				400
Ala	Pro	Ile	Thr	Gly	Tyr	Met	Phe	Gly	Lys	Gly	Ile	Tyr	Phe	Ala
				405					410					415
Met	Ser	Ser	Lys	Ser	Ala	Asn	Tyr	Cys	Phe	Ala	Ser	Arg	Leu	Lys
			420					425					430	
Thr	Gly	Leu	Leu	Leu	Ser	Glu	Val	Ala	Leu	Gly	Gln	Cys	Asn	Glu
			435				440					445		
Leu	Leu	Glu	Ala	Asn	Pro	Lys	Ala	Glu	Gly	Leu	Leu	Gln	Gly	Lys
	450					455				460				
Ser	Thr	Lys	Gly	Leu	Gly	Lys	Met	Ala	Pro	Ser	Ser	Ala	His	Phe
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[illegible]

<210> 5347<211> 2893

<212> DNA

<213> Homo sapiens

<400> 5347

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120	acgcctttgt	gcccggtgct	gggaaccgcg	gacggccggc	acgcgccccg
180	tcgcttatct	gggttccagg	caggtgcggg	cggcgcgcgg	ggtccgcacg
240	gcggctgggg	cgccgggacc	cgccggcgcc	ggcagggggc	ttcccgggcg
300	atgaagcacc	tgaagcggtg	gtggtcggcc	ggcgcgggcc	tcctgcacct
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720	gccagcgtgg	acggcggcag	ccaggctgtg	caggggggct	gcggggactc
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840	gtgccggacg	ctggcggatg	tgcgagcgag	gagaatgggg	tactaagaga
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1140	tcattgggag	atattcctct	tccaggcagt	atcagtgatg	gcatgaattc
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<210> 5348

<211> 694

<212> PRT

<213> Homo sapiens

<400> 5348

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		20						25					30		
Tyr	Leu	Leu	Leu	Pro	Pro	Pro	Thr	Leu	Leu	Gln	Asp	Glu	Leu	Leu	Phe
	35						40					45			
Leu	Gly	Gly	Pro	Ala	Ser	Ser	Ala	Tyr	Ala	Leu	Ser	Pro	Phe	Ser	Ala
	50					55					60				
Ser	Gly	Gly	Trp	Gly	Arg	Ala	Gly	His	Leu	His	Pro	Lys	Gly	Arg	Glu
65					70					75				80	
Leu	Asp	Pro	Ala	Ala	Pro	Pro	Glu	Gly	Gln	Leu	Leu	Arg	Glu	Val	Arg
				85					90					95	
Ala	Leu	Gly	Val	Pro	Phe	Val	Pro	Arg	Thr	Ser	Val	Asp	Ala	Trp	Leu
		100						105					110		
Val	His	Ser	Val	Ala	Ala	Gly	Ser	Ala	Asp	Glu	Ala	His	Gly	Leu	Leu
	115						120					125			
Gly	Ala	Ala	Ala	Ala	Ser	Ser	Thr	Gly	Gly	Ala	Gly	Ala	Ser	Val	Asp
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Gly	Gly	Ser	Gln	Ala	Val	Gln	Gly	Gly	Cys	Gly	Asp	Ser	Arg	Ala	Ala
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Arg	Ser	Gly	Pro	Leu	Asp	Ala	Gly	Glu	Glu	Glu	Lys	Ala	Pro	Ala	Glu
				165					170					175	
Pro	Thr	Ala	Gln	Val	Pro	Asp	Ala	Gly	Gly	Cys	Ala	Ser	Glu	Glu	Asn
		180						185					190		
Gly	Val	Leu	Arg	Glu	Lys	His	Glu	Ala	Val	Asp	His	Ser	Ser	Gln	His
	195						200					205			
Glu	Glu	Asn	Glu	Glu	Arg	Val	Ser	Ala	Gln	Lys	Glu	Asn	Ser	Leu	Gln
	210					215					220				
Gln	Asn	Asp	Asp	Asp	Glu	Asn	Lys	Ile	Ala	Glu	Lys	Pro	Asp	Trp	Glu
225					230					235				240	
Ala	Glu	Lys	Thr	Thr	Glu	Ser	Arg	Asn	Glu	Arg	His	Leu	Asn	Gly	Thr
			245						250					255	
Asp	Thr	Ser	Phe	Ser	Leu	Glu	Asp	Leu	Phe	Gln	Leu	Leu	Ser	Ser	Gln
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Pro	Glu	Asn	Ser	Leu	Glu	Gly	Ile	Ser	Leu	Gly	Asp	Ile	Pro	Leu	Pro
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Gly	Ser	Ile	Ser	Asp	Gly	Met	Asn	Ser	Ser	Ala	His	Tyr	His	Val	Asn
	290					295					300				
Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val	Asn	Leu	His	Glu	Ala	Ile	Leu
305					310					315				320	
Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg	Asp	Pro	Thr	Ala	Arg	Thr	Ser
				325					330					335	
Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu	Asn	Ser	His	Thr	Thr	Asn	Pro

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Asp Asn His Met Arg Asn Leu Thr Ser Gln Asp Leu Leu Tyr Asp Leu
      370      375      380
Asp Ile Asn Ile Phe Asp Glu Ile Asn Leu Met Ser Leu Ala Thr Glu
      385      390      395      400
Asp Asn Phe Asp Pro Ile Asp Val Ser Gln Leu Phe Asp Glu Ser Asp
      405      410      415
Ser Asp Ser Gly Leu Ser Leu Asp Ser Ser His Asn Asn Thr Ser Val
      420      425      430
Ile Lys Ser Asn Ser Ser His Ser Val Cys Asp Glu Gly Ala Ile Gly
      435      440      445
Tyr Cys Thr Asp His Glu Ser Ser Ser His His Asp Leu Glu Gly Ala
      450      455      460
Val Gly Gly Tyr Tyr Pro Glu Pro Ser Lys Leu Cys His Leu Asp Gln
      465      470      475      480
Ser Asp Ser Asp Phe His Gly Asp Leu Thr Phe Gln His Val Phe His
      485      490      495
Asn His Thr Tyr His Leu Gln Pro Thr Ala Pro Glu Ser Thr Ser Glu
      500      505      510
Pro Phe Pro Trp Pro Gly Lys Ser Gln Lys Ile Arg Ser Arg Tyr Leu
      515      520      525
Glu Asp Thr Asp Arg Asn Leu Ser Arg Asp Glu Gln Arg Ala Lys Ala
      530      535      540
Leu His Ile Pro Phe Ser Val Asp Glu Ile Val Gly Met Pro Val Asp
      545      550      555      560
Ser Phe Asn Ser Met Leu Ser Arg Tyr Tyr Leu Thr Asp Leu Gln Val
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      580      585      590
Gln Asn Cys Arg Lys Arg Lys Leu Asp Ile Ile Leu Asn Leu Glu Asp
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Asp Val Cys Asn Leu Gln Ala Lys Lys Glu Thr Leu Lys Arg Glu Gln
      610      615      620
Ala Gln Cys Asn Lys Ala Ile Asn Ile Met Lys Gln Lys Leu His Asp
      625      630      635      640
Leu Tyr His Asp Ile Phe Ser Arg Leu Arg Asp Asp Gln Gly Arg Pro
      645      650      655
Val Asn Pro Asn His Tyr Ala Leu Gln Cys Thr His Asp Gly Ser Ile
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<210> 5349

<211> 425

<212> DNA

<213> Homo sapiens

<400> 5349

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<210> 5350

<211> 134

<212> PRT

<213> Homo sapiens

<400> 5350

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Val	Thr	Ala	Cys	His	Ser	Ser	Pro	Leu	Pro	Cys	Gly	Cys	Gln	Asp	Asn
			20					25					30		
Leu	Gly	Lys	His	His	Thr	Ser	Arg	Glu	Pro	Gln	Ala	Gln	Pro	Lys	Pro
			35				40					45			
His	Lys	Val	Ser	Ser	Gln	Glu	Gly	Glu	Gly	Arg	Ile	Pro	Leu	Pro	Gly
	50					55					60				
Lys	Ala	Glu	Val	Arg	Glu	Ala	Gly	Gln	Pro	Ile	Pro	Val	Ser	Leu	Leu
65					70				75					80	
Leu	Leu	Ser	Pro	Lys	Lys	Ala	Leu	Thr	Leu	Leu	Ala	Thr	Ala	Gln	Gly
				85				90						95	
Gly	His	Glu	Gly	Leu	Gly	Arg	Leu	Leu	Trp	Gln	Ser	Gly	Pro	Leu	Gln
			100				105						110		
Pro	Arg	Pro	Glu	Lys	Lys	Arg	Thr	Pro	Lys	Ser	Phe	Trp	Leu	Pro	Val
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<213> Homo sapiens

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 <211> 112
 <212> PRT
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 35 40 45
 Gln Asp Ala Leu Ser Lys Ser Leu Gln Gln Asn Leu Pro Ser Arg Ser
 50 55 60
 Val Ser Lys Pro Ser Leu Phe Ser Ser Val Gln Leu Tyr Arg Gln Ser
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 <211> 4217<212> DNA
 <213> Homo sapiens

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<211> 605

<212> PRT

<213> Homo sapiens

<400> 5354

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Tyr Tyr Trp Ile Thr Gly Arg Ile Asp Asp Met Leu Asn Val Ser Gly		
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Glu Cys Leu Tyr Cys Phe Val Thr Leu Cys Asp Gly His Thr Phe Ser		
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<211> 1596

<212> DNA

<213> Homo sapiens

<400> 5355

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<212> PRT

<213> Homo sapiens

<400> 5356

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 Leu Cys Pro Pro Val Ser Gly Gln Ala Ala Met Asp Ile Val Val Asn
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 Pro Pro Val Ala Gly Glu Glu Ser Phe Glu Gln Phe Ser Arg Glu Lys
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<211> 1722

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5358

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<213> Homo sapiens

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4800
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4860
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<210> 5360

<211> 1406

<212> PRT

<213> Homo sapiens

<400> 5360

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Val Ser Gln Leu Arg Glu Val Tyr Ser Ser Cys Asp Thr Thr Gly Thr
      35           40           45
Gly Phe Leu Asp Arg Gln Glu Leu Thr Gln Leu Cys Leu Lys Leu His
 50           55           60
Leu Glu Gln Gln Leu Pro Val Leu Leu Gln Thr Leu Leu Gly Asn Asp
65           70           75           80
His Phe Ala Arg Val Asn Phe Glu Glu Phe Lys Glu Gly Phe Val Ala
      85           90           95
Val Leu Ser Ser Asn Ala Gly Val Arg Pro Ser Asp Glu Asp Ser Ser
      100          105          110
Ser Leu Glu Ser Ala Ala Ser Ser Ala Ile Pro Pro Lys Tyr Val Asn
      115          120          125
Gly Ser Lys Trp Tyr Gly Arg Arg Ser Arg Pro Glu Leu Cys Asp Ala
      130          135          140
Ala Thr Glu Ala Arg Arg Val Pro Glu Gln Gln Thr Gln Ala Ser Leu
145          150          155          160
Lys Ser His Leu Trp Arg Ser Ala Ser Leu Glu Ser Val Glu Ser Pro
      165          170          175
Lys Ser Asp Glu Glu Ala Glu Ser Thr Lys Glu Ala Gln Asn Glu Leu
      180          185          190
Phe Glu Ala Gln Gly Gln Leu Gln Thr Trp Asp Ser Glu Asp Phe Gly
      195          200          205
Ser Pro Gln Lys Ser Cys Ser Pro Ser Phe Asp Thr Pro Glu Ser Gln
      210          215          220
Ile Arg Gly Val Trp Glu Glu Leu Gly Val Gly Ser Ser Gly His Leu
225          230          235          240
Ser Glu Gln Glu Leu Ala Val Val Cys Gln Ser Val Gly Leu Gln Gly
      245          250          255
Leu Glu Lys Glu Glu Leu Glu Asp Leu Phe Asn Lys Leu Asp Gln Asp
      260          265          270
Gly Asp Gly Lys Val Ser Leu Glu Glu Phe Gln Leu Gly Leu Phe Ser
      275          280          285
His Glu Pro Ala Leu Leu Leu Glu Ser Ser Thr Arg Val Lys Pro Ser
      290          295          300
Lys Ala Trp Ser His Tyr Gln Val Pro Glu Glu Ser Gly Cys His Thr
305          310          315          320
Thr Thr Thr Ser Ser Leu Val Ser Leu Cys Ser Ser Leu Arg Leu Phe
      325          330          335
Ser Ser Ile Asp Asp Gly Ser Gly Phe Ala Phe Pro Asp Gln Val Leu
      340          345          350
Ala Met Trp Thr Gln Glu Gly Ile Gln Asn Gly Arg Glu Ile Leu Gln
      355          360          365
Ser Leu Asp Phe Ser Val Asp Glu Lys Val Asn Leu Leu Glu Leu Thr
      370          375          380
Trp Ala Leu Asp Asn Glu Leu Met Thr Val Asp Ser Ala Val Gln Gln

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385          390          395          400
Ala Ala Leu Ala Cys Tyr His Gln Glu Leu Ser Tyr Gln Gln Gly Gln
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Val Glu Gln Leu Ala Arg Glu Arg Asp Lys Ala Arg Gln Asp Leu Glu
          420          425          430
Arg Ala Glu Lys Arg Asn Leu Glu Phe Val Lys Glu Met Asp Asp Cys
          435          440          445
His Ser Thr Leu Glu Gln Leu Thr Glu Lys Lys Ile Lys His Leu Glu
          450          455          460
Gln Gly Tyr Arg Glu Arg Leu Ser Leu Leu Arg Ser Glu Val Glu Ala
465          470          475          480
Glu Arg Glu Leu Phe Trp Glu Gln Ala His Arg Gln Arg Ala Ala Leu
          485          490          495
Glu Trp Asp Val Gly Arg Leu Gln Ala Glu Glu Ala Gly Leu Arg Glu
          500          505          510
Lys Leu Thr Leu Ala Leu Lys Glu Asn Ser Arg Leu Gln Lys Glu Ile
          515          520          525
Val Glu Val Val Glu Lys Leu Ser Asp Ser Glu Arg Leu Ala Leu Lys
          530          535          540
Leu Gln Lys Asp Leu Glu Phe Val Leu Lys Asp Lys Leu Glu Pro Gln
545          550          555          560
Ser Ala Glu Leu Leu Ala Gln Glu Glu Arg Phe Ala Ala Val Leu Lys
          565          570          575
Glu Tyr Glu Leu Lys Cys Arg Asp Leu Gln Asp Arg Asn Asp Glu Leu
          580          585          590
Gln Ala Glu Leu Glu Gly Leu Trp Ala Arg Leu Pro Lys Asn Arg His
          595          600          605
Ser Pro Ser Trp Ser Pro Asp Gly Arg Arg Arg Gln Leu Pro Gly Leu
          610          615          620
Gly Pro Ala Gly Ile Ser Phe Leu Gly Asn Ser Ala Pro Val Ser Ile
625          630          635          640
Glu Thr Glu Leu Met Met Glu Gln Val Lys Glu His Tyr Gln Asp Leu
          645          650          655
Arg Thr Gln Leu Glu Thr Lys Val Asn Tyr Tyr Glu Arg Glu Ile Ala
          660          665          670
Ala Leu Lys Arg Asn Phe Glu Lys Glu Arg Lys Asp Met Glu Gln Ala
          675          680          685
Arg Arg Arg Glu Val Ser Val Leu Glu Gly Gln Lys Ala Asp Leu Glu
          690          695          700
Glu Leu His Glu Lys Ser Gln Glu Val Ile Trp Gly Leu Gln Glu Gln
705          710          715          720
Leu Gln Asp Thr Ala Arg Gly Pro Glu Pro Glu Gln Met Gly Leu Ala
          725          730          735
Pro Cys Cys Thr Gln Ala Leu Cys Gly Leu Ala Leu Arg His His Ser
          740          745          750
His Leu Gln Gln Ile Arg Arg Glu Ala Glu Ala Glu Leu Ser Gly Glu
          755          760          765
Leu Ser Gly Leu Gly Ala Leu Pro Ala Arg Arg Asp Leu Thr Leu Glu
          770          775          780
Leu Glu Glu Pro Pro Gln Gly Pro Leu Pro Arg Gly Ser Gln Arg Ser
785          790          795          800
Glu Gln Leu Glu Leu Glu Arg Ala Leu Lys Leu Gln Pro Cys Ala Ser
          805          810          815
Glu Lys Arg Ala Gln Met Cys Val Ser Leu Ala Leu Glu Glu Glu Glu

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										820						825						830		
Leu	Glu	Leu	Ala	Arg	Gly	Lys	Arg	Val	Asp	Gly	Pro	Ser	Leu	Glu	Ala									
			835				840						845											
Glu	Met	Gln	Ala	Leu	Pro	Lys	Asp	Gly	Leu	Val	Ala	Gly	Ser	Gly	Gln									
			850				855						860											
Glu	Gly	Thr	Arg	Gly	Leu	Leu	Pro	Leu	Arg	Pro	Gly	Cys	Gly	Glu	Arg									
			865				870						875			880								
Pro	Leu	Ala	Trp	Leu	Ala	Pro	Gly	Asp	Gly	Arg	Glu	Ser	Glu	Glu	Ala									
			885				890						895											
Ala	Gly	Ala	Gly	Pro	Arg	Arg	Arg	Gln	Ala	Gln	Asp	Thr	Glu	Ala	Thr									
			900				905						910											
Gln	Ser	Pro	Ala	Pro	Ala	Pro	Ala	Pro	Ala	Ser	His	Gly	Pro	Ser	Glu									
			915				920						925											
Arg	Trp	Ser	Arg	Met	Gln	Pro	Cys	Gly	Val	Asp	Gly	Asp	Ile	Val	Pro									
			930				935						940											
Lys	Glu	Pro	Glu	Pro	Phe	Gly	Ala	Ser	Ala	Ala	Gly	Leu	Glu	Gln	Pro									
			945				950						955			960								
Gly	Ala	Arg	Glu	Leu	Pro	Leu	Leu	Gly	Thr	Glu	Arg	Asp	Ala	Ser	Gln									
			965				970						975											
Thr	Gln	Pro	Arg	Met	Trp	Glu	Pro	Pro	Leu	Arg	Pro	Ala	Ala	Ser	Cys									
			980				985						990											
Arg	Gly	Gln	Ala	Glu	Arg	Leu	Gln	Ala	Ile	Gln	Glu	Glu	Arg	Ala	Arg									
			995				1000						1005											
Ser	Trp	Ser	Arg	Gly	Thr	Gln	Glu	Gln	Ala	Ser	Glu	Gln	Gln	Ala	Arg									
			1010				1015						1020											
Ala	Glu	Gly	Ala	Leu	Glu	Pro	Gly	Cys	His	Lys	His	Ser	Val	Glu	Val									
			1025				1030						1035			1040								
Ala	Arg	Arg	Gly	Ser	Leu	Pro	Ser	His	Leu	Gln	Leu	Ala	Asp	Pro	Gln									
			1045				1050						1055											
Gly	Ser	Trp	Gln	Glu	Gln	Leu	Ala	Ala	Pro	Glu	Glu	Gly	Glu	Thr	Lys									
			1060				1065						1070											
Ile	Ala	Leu	Glu	Arg	Glu	Lys	Asp	Asp	Met	Glu	Thr	Lys	Leu	Leu	His									
			1075				1080						1085											
Leu	Glu	Asp	Val	Val	Arg	Ala	Leu	Glu	Lys	His	Val	Asp	Leu	Arg	Glu									
			1090				1095						1100											
Asn	Asp	Arg	Leu	Glu	Phe	His	Arg	Leu	Ser	Glu	Glu	Asn	Thr	Leu	Leu									
			1105				1110						1115			1120								
Lys	Asn	Asp	Leu	Gly	Arg	Val	Arg	Gln	Glu	Leu	Glu	Ala	Ala	Glu	Ser									
			1125				1130						1135											
Thr	His	Asp	Ala	Gln	Arg	Lys	Glu	Ile	Glu	Val	Leu	Lys	Lys	Asp	Lys									
			1140				1145						1150											
Glu	Lys	Ala	Cys	Ser	Glu	Met	Glu	Val	Leu	Asn	Arg	Gln	Asn	Gln	Asn									
			1155				1160						1165											
Tyr</																								

1250 1255 1260
 Arg Gln Ala Gln Ala Gln His Leu Gln Glu Val Arg Leu Val Pro Gln
 1265 1270 1275 1280
 Asp Arg Val Ala Glu Leu His Arg Leu Leu Ser Leu Gln Gly Glu Gln
 1285 1290 1295
 Ala Arg Arg Arg Leu Asp Ala Gln Arg Glu Glu His Glu Lys Gln Leu
 1300 1305 1310
 Lys Ala Thr Glu Glu Arg Val Glu Glu Ala Glu Met Ile Leu Lys Asn
 1315 1320 1325
 Met Glu Met Leu Leu Gln Glu Lys Val Asp Lys Leu Lys Glu Gln Phe
 1330 1335 1340
 Glu Lys Asn Thr Lys Ser Asp Leu Leu Leu Lys Glu Leu Tyr Val Glu
 1345 1350 1355 1360
 Asn Ala His Leu Val Arg Ala Leu Gln Ala Thr Glu Glu Lys Gln Arg
 1365 1370 1375
 Gly Ala Glu Lys Gln Ser Arg Leu Leu Glu Glu Lys Val Arg Ala Leu
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 Asn Lys Leu Val Ser Arg Ile Ala Pro Ala Ala Leu Ser Val
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<210> 5361
 <211> 1080
 <212> DNA
 <213> Homo sapiens

<400> 5361
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 120
 gggcttctcg ggcctccggc agatggagga tggcattaaa tgccaacaca gtcagcttac
 180
 catccacaag gccagcagct gccaacagct gccctagacc tatcaacaag acaacttcac
 240
 ggctcccaat gggaatggag gctgggcccg cctacttag agcaggggaa agaacttttc
 300
 cctcaaagag ccggggcagg atgccagaat ctaactacat cctctcccgg tttgcagttc
 360
 taggaagtgg aatttgctgc cctaggcgtg gtctaaagga caagttttaga aatgattcaa
 420
 ctcaagtcc taaacagagt aagtgccagt tgatgtccca ccgtggatcc tttactccag
 480
 aaaaattgta atgatggctc ggccaccgcc ttggctagag tccactgca cgcgtgtcgt
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 780
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 840

tgctggggacc acaggcgtga gccaccgcgc ccggccgtct gtctgggtttt caaaccaatc
 900
 aatgaacccg taagcctctt tggatatatat aacaatgaaa aaattcatta agccatgaaa
 960
 tctagaaata agtcatatct ctgagttgat aaaatgcttt tctgaacata catttttaggt
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<210> 5362

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5362

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			20					25					30		
Trp	Ala	Ser	Pro	Ser	Gly	Phe	Phe	Cys	Cys	Cys	Cys	Cys	Phe	Leu	Arg
		35					40						45		
Trp	Ser	Leu	Ala	Leu	Xaa	Ala	Gln	Thr	Glu	Val	Gln	Arg	Pro	Asp	Leu
		50				55					60				
Asn	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gly	Phe	Lys	Gly	Phe	Ser	Cys	Leu
65					70					75					80
Ser	Leu	Leu	Ser	Ser	Trp	Asp	Tyr	Arg	His	Pro	Pro	Ala	Arg	Pro	Ala
				85					90					95	
Phe	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Leu	Ser	Cys	Trp	Pro	Gly
			100					105					110		
Trp	Ser	Arg	Thr	Pro	Asp	Leu	Met	Xaa	Ser	Thr	Arg	Leu	Gly	Leu	Pro
		115					120					125			
Asn	Cys	Trp	Asp	His	Arg	Arg	Glu	Pro	Pro	Arg	Pro	Ala	Val	Cys	Leu
		130				135					140				
Val	Phe	Lys	Pro	Ile	Asn	Glu	Pro	Val	Ser	Leu	Phe	Gly	Ile	Tyr	Asn
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Asn	Glu	Lys	Ile	His											
				165											

<210> 5363

<211> 894

<212> DNA

<213> Homo sapiens

<400> 5363

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 120
 cggcgttgca ccggtctctgt gagcacctcc cctctgagca cttcccttgt gacaggccac
 180
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 240
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 300

agagctgtgg ccaggagagc agcagtgccc tgagctgccc taccgtctcg gtgccccctg
 360
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 420
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 480
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 720
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 780
 ccctctatgg acagtgcctt antgctgagc agcttgagcg gaagcagctg gagtgcgagc
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 894

<210> 5364

<211> 187

<212> PRT

<213> Homo sapiens

<400> 5364

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Arg	Trp	Arg	Lys	Arg	Ala	Leu	Gly	Arg	Leu	Gln	Gly	Xaa	Gly	Pro	Gln
			20					25					30		
Pro	Gly	Leu	Tyr	Ser	Tyr	Ile	Arg	Asp	Asp	Leu	Phe	Thr	Ser	Glu	Ile
		35					40					45			
Phe	Lys	Leu	Glu	Leu	Gln	Asn	Ala	Pro	Arg	His	Ala	Ser	Phe	Ser	Asp
	50					55					60				
Val	Arg	Arg	Phe	Leu	Gly	Arg	Phe	Gly	Leu	Gln	Pro	His	Lys	Thr	Lys
65					70					75				80	
Leu	Phe	Gly	Gln	Pro	Pro	Cys	Ala	Phe	Val	Thr	Phe	Arg	Ser	Ala	Ala
				85					90					95	
Glu	Arg	Asp	Lys	Ala	Leu	Arg	Val	Leu	His	Gly	Ala	Leu	Trp	Lys	Gly
			100					105					110		
Arg	Pro	Leu	Ser	Val	Ala	Trp	Pro	Gly	Pro	Arg	Pro	Thr	Pro	Trp	Pro
		115						120				125			
Gly	Gly	Gly	Xaa	Gln	Glu	Gly	Glu	Ser	Glu	Pro	Pro	Val	Thr	Arg	Xaa
		130				135						140			
Gly	Arg	Arg	Gly	Asp	Pro	Ser	Met	Asp	Ser	Ala	Leu	Xaa	Leu	Ser	Ser
145					150					155				160	
Leu	Ser	Gly	Ser	Ser	Trp	Ser	Ala	Ser	Arg	Cys	Cys	Arg	Asn	Xaa	Ala
				165					170					175	
Gln	Glu	Ile	Gly	Ser	Thr	Asn	Arg	Ala	Leu	Arg					
			180					185							

<210> 5365

<211> 1824

<212> DNA

<213> Homo sapiens

<400> 5365

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120
gaactcgcca gaaaactgca ggaggaagct acgtgctcca tctgtctgga ttacttcaca
180
gaccctgtga tgaccacctg tggccacaac ttctgccgag cctgcatcca gctgagctgg
240
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300
tgcaagagaga tgtccccgca gaggaacctg ctgccaacc ggctgctgac caaggtggcc
360
gagatggcgc agcagcatcc tggctctgcag aagcaagacc tgtgccagga gcaccacgag
420
cccctcaagc ttttctgcca gaaggaccag agccccatct gtgtggtgtg caggagatcc
480
cgggagcacc ggctgcacag ggtgctgccc gccgaggagg cagtgcaggg gtacaagttg
540
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600
gccagggagg agcagagctt agccgagtgg cagggaagg tgaaggagcg gagagaacgc
660
attgtgctgg agtttgagaa gatgaacctc tacctggtgg aagaagagca gaggctcctc
720
caggctctgg agacggaaga agaggagact gccagcaggc tccgggagag cgtggcctgc
780
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840
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900
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960
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1020
taccctacc tcctcctgta tgagagccgc cagaggcgct acctcggtc ttcgccggag
1080
ggcagtgggt tctgcagcaa ggaccgattt gtggcttacc cctgtgctgt gggccagacg
1140
gccttctcct ctgggaggca ctactgggag gtgggcatga acatcacccg ggacgcgttg
1200
tgggccctgg gtgtgtgcag ggacaacgtg agccggaaag acagggctct caagtcccc
1260
gaaaacggct tctgggtggt gcagctgtcc aaggggacca agtacttacc caccttctct
1320
gccctaacc cggtcatgct gatggagcct ccagccaca tgggcatctt cctggacttc
1380
gaagccgggg aagtgtcctt ctacagtga agcgatgggt ccacactgca cacctactcc
1440
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 1560
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 1620
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 1680
 aatataattg tgattagaac tgtcaaacat taagagggtg tactgacaga tgcttcctag
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 1800
 accaaaaaaa aaaaaaagtc gagc
 1824

<210> 5366

<211> 477

<212> PRT

<213> Homo sapiens

<400> 5366

Met	Glu	Ala	Val	Glu	Leu	Ala	Arg	Lys	Leu	Gln	Glu	Glu	Ala	Thr	Cys
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Ser	Ile	Cys	Leu	Asp	Tyr	Phe	Thr	Asp	Pro	Val	Met	Thr	Thr	Cys	Gly
			20					25					30		
His	Asn	Phe	Cys	Arg	Ala	Cys	Ile	Gln	Leu	Ser	Trp	Glu	Lys	Ala	Arg
			35				40					45			
Gly	Lys	Lys	Gly	Arg	Arg	Lys	Arg	Lys	Gly	Ser	Phe	Pro	Cys	Pro	Glu
	50					55					60				
Cys	Arg	Glu	Met	Ser	Pro	Gln	Arg	Asn	Leu	Leu	Pro	Asn	Arg	Leu	Leu
65					70				75					80	
Thr	Lys	Val	Ala	Glu	Met	Ala	Gln	Gln	His	Pro	Gly	Leu	Gln	Lys	Gln
				85				90					95		
Asp	Leu	Cys	Gln	Glu	His	His	Glu	Pro	Leu	Lys	Leu	Phe	Cys	Gln	Lys
			100					105					110		
Asp	Gln	Ser	Pro	Ile	Cys	Val	Val	Cys	Arg	Glu	Ser	Arg	Glu	His	Arg
			115				120					125			
Leu	His	Arg	Val	Leu	Pro	Ala	Glu	Glu	Ala	Val	Gln	Gly	Tyr	Lys	Leu
	130					135					140				
Lys	Leu	Glu	Glu	Asp	Met	Glu	Tyr	Leu	Arg	Glu	Gln	Ile	Thr	Arg	Thr
145					150				155					160	
Gly	Asn	Leu	Gln	Ala	Arg	Glu	Glu	Gln	Ser	Leu	Ala	Glu	Trp	Gln	Gly
			165					170					175		
Lys	Val	Lys	Glu	Arg	Arg	Glu	Arg	Ile	Val	Leu	Glu	Phe	Glu	Lys	Met
			180					185				190			
Asn	Leu	Tyr	Leu	Val	Glu	Glu	Glu	Gln	Arg	Leu	Leu	Gln	Ala	Leu	Glu
			195				200					205			
Thr	Glu	Glu	Glu	Glu	Thr	Ala	Ser	Arg	Leu	Arg	Glu	Ser	Val	Ala	Cys
	210					215					220				
Leu	Asp	Arg	Gln	Gly	His	Ser	Leu	Glu	Leu	Leu	Leu	Gln	Leu	Glu	
225					230				235					240	
Glu	Arg	Ser	Thr	Gln	Gly	Pro	Leu	Gln	Met	Leu	Gln	Asp	Met	Lys	Glu
			245					250					255		
Pro	Leu	Ser	Arg	Lys	Asn	Asn	Val	Ser	Val	Gln	Cys	Pro	Glu	Val	Ala
			260					265					270		
Pro	Pro	Thr	Arg	Pro	Arg	Thr	Val	Cys	Arg	Val	Pro	Gly	Gln	Ile	Glu

275	280	285
Val Leu Arg Gly Phe Leu Glu Asp Val Val Pro Asp Ala Thr Ser Ala		
290	295	300
Tyr Pro Tyr Leu Leu Leu Tyr Glu Ser Arg Gln Arg Arg Tyr Leu Gly		
305	310	315
Ser Ser Pro Glu Gly Ser Gly Phe Cys Ser Lys Asp Arg Phe Val Ala		
325	330	335
Tyr Pro Cys Ala Val Gly Gln Thr Ala Phe Ser Ser Gly Arg His Tyr		
340	345	350
Trp Glu Val Gly Met Asn Ile Thr Gly Asp Ala Leu Trp Ala Leu Gly		
355	360	365
Val Cys Arg Asp Asn Val Ser Arg Lys Asp Arg Val Leu Lys Cys Pro		
370	375	380
Glu Asn Gly Phe Trp Val Val Gln Leu Ser Lys Gly Thr Lys Tyr Leu		
385	390	395
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405	410	415
His Met Gly Ile Phe Leu Asp Phe Glu Ala Gly Glu Val Ser Phe Tyr		
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Ser Val Ser Asp Gly Ser His Leu His Thr Tyr Ser Gln Ala Thr Phe		
435	440	445
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<212> DNA

<213> Homo sapiens

<400> 5367

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 Thr Lys Glu Gly Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro Thr
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 Pro Ala Pro Ala His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn Glu
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<212> PRT

<213> Homo sapiens

<400> 5372

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Val	Val	Gly	Phe	Gly	Gly	Ile	His	Ser	Thr	Pro	Ser	Thr	Val	Leu	Ser
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	275		280		285	
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Asp Cys Trp Glu Glu Gly Pro Gln Leu Asp Asn Ser Ile Ser Gly Leu						
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Arg Gly Thr Pro Asp Arg Ser Gln Ala Asp Pro Asp Phe Ala Ser Glu						
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<212> DNA

<213> Homo sapiens

<400> 5373

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<212> PRT

<213> Homo sapiens

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Asp	Val	Gly	Glu	Tyr	Asn	Ser	Ala	Leu	Pro	Leu	Leu	Ser	Ala	Leu	Val	
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Cys	Ser	Glu	Arg	Tyr	Asn	Leu	Ala	Val	Val	Trp	Leu	Arg	His	Ala	Glu	
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Cys	Leu	Lys	Ala	Leu	Gly	Tyr	Met	Glu	Arg	Ala	Ala	Glu	Ser	Tyr	Gly	
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Lys	Val	Val	Asp	Leu	Ala	Pro	Leu	His	Leu	Asp	Ala	Arg	Ile	Ser	Leu	
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Trp	Trp	Asn	Leu	Leu	Leu	Lys	Ala	Ile	Tyr	Ser	Leu	Cys	Asp	Leu	Ser	
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Arg	Phe	Gln	Glu	Ala	Glu	Leu	Leu	Val	Asp	Ser	Ser	Leu	Glu	Tyr	Tyr	
				645					650					655		
Ser	Phe	Tyr	Asp	Asp	Arg	Gln	Lys	Arg	Lys	Glu	Leu	Glu	Tyr	Phe	Gly	
			660					665					670			
Leu	Ser	Ala	Ala	Ile	Leu	Asp	Lys	Asn	Phe	Arg	Lys	Ala	Tyr	Asn	Tyr	
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      770              775              780
Tyr Val Leu Arg Arg His Ala Leu Ile Val Gln Gly Phe Ser Phe Leu
785              790              795              800
Asn Arg Tyr Leu Ser Leu Arg Gly Pro Cys Gln Glu Ser Phe Tyr Asn
      805              810              815
Leu Gly Arg Gly Leu His Gln Leu Gly Leu Ile His Leu Ala Ile His
      820              825              830
Tyr Tyr Gln Lys Ala Leu Glu Leu Pro Pro Leu Val Val Glu Gly Ile
      835              840              845
Glu Leu Asp Gln Leu Asp Leu Arg Arg Asp Ile Ala Tyr Asn Leu Ser
      850              855              860
Leu Ile Tyr Gln Ser Ser Gly Asn Thr Gly Met Ala Gln Thr Leu Leu
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Tyr Thr Tyr Cys Ser Ile
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<210> 5375

<211> 526

<212> DNA

<213> Homo sapiens

<400> 5375

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120
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180
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240
ccctcctcc ttattaaaga agaatacatg tcgctgccat ttgccacgta ttgccatag
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360
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420
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<210> 5376

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5376

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20     25     30
Leu Gln Arg Ala Ala Ala Ser Ser Glu Ser Pro Val Ala Arg Thr Trp
35     40     45
Val Gln Leu Lys Ser Ile Ser Leu Phe Ala Phe Ser Glu Ala Ser Pro

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50		55		60	
Ser Ser Leu Leu Lys Lys Asn Thr Cys Arg Cys His Leu Pro Arg Ile					
65		70		75	80
Cys His Arg Pro Arg Thr Ile Ser Ile Phe Asn Pro Arg Asn His Thr					
	85		90		95
Gly Asp Gly Trp Gly Met Phe Met Ser Pro Phe Tyr Arg Ser Gly Asp					
	100		105		110

<210> 5377

<211> 1452

<212> DNA

<213> Homo sapiens

<400> 5377

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420
aaagattata gacagatgat catcgagccc accagccctt gccttctccc agaccctctg
480
caggaaccgt actaccagcc accctacagc ctogtttttg agctcaccgg cgtcctcttg
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catcctgagt ggtcgctggc cactggctgg aggtttaaga agcgcccagg catcgagacc
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960
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1200

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 1320
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<210> 5378

<211> 374

<212> PRT

<213> Homo sapiens

<400> 5378

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			20					25					30		
Arg	Ser	Gly	Leu	Arg	Leu	Gly	Ser	Arg	Gly	Leu	Cys	Thr	Arg	Leu	Ala
		35					40					45			
Thr	Pro	Pro	Arg	Arg	Ala	Pro	Asp	Gln	Ala	Ala	Glu	Ile	Gly	Ser	Arg
	50				55						60				
Gly	Ser	Thr	Lys	Ala	Gln	Gly	Pro	Gln	Gln	Gln	Pro	Gly	Ser	Glu	Gly
65				70					75					80	
Pro	Ser	Tyr	Ala	Lys	Lys	Val	Ala	Leu	Trp	Leu	Ala	Gly	Leu	Leu	Gly
				85					90					95	
Ala	Gly	Gly	Thr	Val	Ser	Val	Val	Tyr	Ile	Phe	Gly	Asn	Asn	Pro	Val
			100					105					110		
Asp	Glu	Asn	Gly	Ala	Lys	Ile	Pro	Asp	Glu	Phe	Asp	Asn	Asp	Pro	Ile
	115					120						125			
Leu	Val	Gln	Gln	Leu	Arg	Arg	Thr	Tyr	Lys	Tyr	Phe	Lys	Asp	Tyr	Arg
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Gln	Met	Ile	Ile	Glu	Pro	Thr	Ser	Pro	Cys	Leu	Leu	Pro	Asp	Pro	Leu
145				150					155					160	
Gln	Glu	Pro	Tyr	Tyr	Gln	Pro	Pro	Tyr	Thr	Leu	Val	Leu	Glu	Leu	Thr
			165					170						175	
Gly	Val	Leu	Leu	His	Pro	Glu	Trp	Ser	Leu	Ala	Thr	Gly	Trp	Arg	Phe
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Lys	Lys	Arg	Pro	Gly	Ile	Glu	Thr	Leu	Phe	Gln	Gln	Leu	Ala	Pro	Leu
	195					200						205			
Tyr	Glu	Ile	Val	Ile	Phe	Thr	Ser	Glu	Thr	Gly	Met	Thr	Ala	Phe	Pro
	210				215						220				
Leu	Ile	Asp	Ser	Val	Asp	Pro	His	Gly	Phe	Ile	Ser	Tyr	Arg	Leu	Phe
225				230					235					240	
Arg	Asp	Ala	Thr	Arg	Tyr	Met	Asp	Gly	His	His	Val	Lys	Asp	Ile	Ser
				245				250						255	
Cys	Leu	Asn	Arg	Asp	Pro	Ala	Arg	Val	Val	Val	Val	Asp	Cys	Lys	Lys
		260					265					270			
Glu	Ala	Phe	Arg	Leu	Gln	Pro	Tyr	Asn	Gly	Val	Ala	Leu	Arg	Pro	Trp
	275					280					285				
Asp	Gly	Asn	Ser	Asp	Asp	Arg	Val	Leu	Leu	Asp	Leu	Ser	Ala	Phe	Leu

290		295		300
Lys Thr Ile Ala Leu Asn Gly Val Glu Asp Val Arg Thr Val Leu Glu				
305		310		315
His Tyr Ala Leu Glu Asp Asp Pro Leu Ala Ala Phe Lys Gln Arg Gln				
	325		330	335
Ser Arg Leu Glu Gln Glu Glu Gln Gln Arg Leu Ala Glu Leu Ser Lys				
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Ser Asn Lys Gln Asn Leu Phe Leu Gly Ser Leu Thr Ser Arg Leu Trp				
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<210> 5379

<211> 3213

<212> DNA

<213> Homo sapiens

<400> 5379

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<211> 903

<212> PRT

<213> Homo sapiens

<400> 5380

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Ser	Cys	Ala	Pro	Ala	Leu	Leu	Gly	Ser	Gly	Cys	Gly	Ser	Gly	Glu	Ser
		35					40					45			
Cys	Asp	Arg	Gly	Cys	Leu	Ala	Ala	Ile	Leu	Ala	Ser	Thr	Ser	Ala	Thr
	50					55				60					
Gln	Ala	Arg	Met	Val	Leu	Arg	Cys	Cys	Ser	Glu	Phe	Ile	Glu	Ala	His
65				70					75					80	
Gly	Val	Val	Asp	Gly	Ile	Tyr	Arg	Leu	Ser	Gly	Val	Ser	Ser	Asn	Ile
			85					90						95	
Gln	Arg	Leu	Arg	His	Glu	Phe	Asp	Ser	Glu	Arg	Ile	Pro	Glu	Leu	Ser
		100						105					110		
Gly	Pro	Ala	Phe	Leu	Gln	Asp	Ile	His	Ser	Val	Ser	Ser	Leu	Cys	Lys
		115				120						125			
Leu	Tyr	Phe	Arg	Glu	Leu	Pro	Asn	Pro	Leu	Leu	Thr	Tyr	Gln	Leu	Tyr
	130					135					140				
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Val	Arg	Val	His	Asp	Val	Ile	Gln	Gln	Leu	Pro	Pro	Pro	His	Tyr	Arg
			165					170						175	
Thr	Leu	Glu	Tyr	Leu	Leu	Arg	His	Leu	Ala	Arg	Met	Ala	Arg	His	Ser
		180						185					190		
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Asn	Leu	Leu	Arg	Ser	Met	Glu	Leu	Glu	Ser	Val	Gly	Met	Gly	Gly	Ala
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Ala	Ala	Phe	Arg	Glu	Val	Arg	Val	Gln	Ser	Val	Val	Val	Glu	Phe	Leu

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          260          265          270
Gly Ser Cys Pro Ser Thr Arg Leu Leu Thr Leu Glu Glu Ala Gln Ala
          275          280          285
Arg Thr Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys
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Ala Pro Ala Ser Pro Ala Glu Arg Arg Lys Gly Glu Arg Gly Glu Lys
305          310          315          320
Gln Arg Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly
          325          330          335
Arg Gly Pro Ser Val Pro Arg Lys Lys Pro Leu Pro Trp Leu Gly Gly
          340          345          350
Thr Arg Ala Pro Pro Gln Pro Ser Ala Trp Leu Asp Asp Gly Asp Glu
          355          360          365
Leu Asp Phe Ser Pro Pro Arg Cys Leu Glu Gly Leu Arg Gly Leu Asp
          370          375          380
Phe Asp Pro Leu Thr Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro
385          390          395          400
Ala Pro Pro Ala Ser Pro Ala Pro Pro Ala Pro Ala Ser Ala Phe Pro
          405          410          415
Pro Arg Val Thr Pro Gln Ala Ile Ser Pro Arg Gly Pro Thr Ser Pro
          420          425          430
Ala Ser Pro Ala Ala Leu Asp Ile Ser Glu Pro Leu Ala Val Ser Val
          435          440          445
Pro Pro Ala Val Leu Glu Leu Leu Gly Ala Gly Gly Ala Pro Ala Ser
          450          455          460
Ala Thr Pro Thr Pro Ala Leu Ser Pro Gly Arg Ser Leu Arg Pro His
465          470          475          480
Leu Ile Pro Leu Leu Leu Arg Gly Ala Glu Ala Pro Leu Thr Asp Ala
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Cys Gln Gln Glu Met Cys Ser Lys Leu Arg Gly Ala Gln Gly Pro Leu
          500          505          510
Ala Arg Leu Met Ala Leu Ala Leu Ala Glu Arg Ala Gln Gln Val Ala
          515          520          525
Glu Gln Gln Ser Gln Gln Glu Cys Gly Gly Thr Pro Pro Ala Ser Gln
          530          535          540
Ser Pro Phe His Arg Ser Leu Ser Leu Glu Val Gly Gly Glu Pro Leu
545          550          555          560
Gly Thr Ser Gly Ser Gly Pro Pro Pro Asn Ser Leu Ala His Pro Gly
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Ala Trp Val Pro Gly Pro Pro Pro Tyr Leu Pro Arg Gln Gln Ser Asp
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Gly Ser Leu Leu Arg Ser Gln Arg Pro Met Gly Thr Ser Arg Arg Gly
          595          600          605
Leu Arg Gly Pro Ala Gln Val Ser Ala Gln Leu Arg Ala Gly Gly Gly
          610          615          620
Gly Arg Asp Ala Pro Glu Ala Ala Ala Gln Ser Pro Cys Ser Val Pro
625          630          635          640
Ser Gln Val Pro Thr Pro Gly Phe Phe Ser Pro Ala Pro Arg Glu Cys
          645          650          655
Leu Pro Pro Phe Leu Gly Val Pro Lys Pro Gly Leu Tyr Pro Leu Gly

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660										665				670			
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Leu	Gly	Pro	Pro	Ala	Pro	Leu	Asp	Arg	Gly	Glu	Asn	Leu	Tyr	Tyr	Glu		
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Ile	Gly	Ala	Ser	Glu	Gly	Ser	Pro	Tyr	Ser	Gly	Pro	Thr	Arg	Ser	Trp		
705				710				715				720					
Ser	Pro	Phe	Arg	Ser	Met	Pro	Pro	Asp	Arg	Leu	Asn	Ala	Ser	Tyr	Gly		
725				730				735									
Met	Leu	Gly	Gln	Ser	Pro	Pro	Leu	His	Arg	Ser	Pro	Asp	Phe	Leu	Leu		
740				745				750									
Ser	Tyr	Pro	Pro	Ala	Pro	Ser	Cys	Phe	Pro	Pro	Asp	His	Leu	Gly	Tyr		
755				760				765									
Ser	Ala	Pro	Gln	His	Pro	Ala	Arg	Arg	Pro	Thr	Pro	Pro	Glu	Pro	Leu		
770				775				780									
Tyr	Val	Asn	Leu	Ala	Leu	Gly	Pro	Arg	Gly	Pro	Ser	Pro	Ala	Ser	Ser		
785				790				795				800					
Ser	Ser	Ser	Ser	Pro	Pro	Ala	His	Pro	Arg	Ser	Arg	Ser	Asp	Pro	Gly		
805				810				815									
Pro	Pro	Val	Pro	Arg	Leu	Pro	Gln	Lys	Gln	Arg	Ala	Pro	Trp	Gly	Pro		
820				825				830									
Arg	Thr	Pro	His	Arg	Val	Pro	Gly	Pro	Trp	Gly	Pro	Pro	Glu	Pro	Leu		
835				840				845									
Leu	Leu	Tyr	Arg	Ala	Ala	Pro	Pro	Ala	Tyr	Gly	Arg	Gly	Gly	Glu	Leu		
850				855				860									
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865				870				875				880					
Gly	Pro	Pro	Pro	Pro	Tyr	Pro	Thr	Pro	Ser	Trp	Ser	Leu	His	Ser	Glu		
885				890				895									
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<210> 5381

<211> 1576

<212> DNA

<213> Homo sapiens

<400> 5381

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<210> 5382

<211> 223

<212> PRT

<213> Homo sapiens

<400> 5382

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Ile	Ser	Gln	Ala	Trp	Pro	Gly	Met	Ala	Arg	Thr	Ile	Tyr	Gly	Asp	His
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Gln	Arg	Phe	Val	Asp	Ala	Tyr	Phe	Lys	Ala	Tyr	Pro	Gly	Tyr	Tyr	Phe
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Thr	Gly	Asp	Gly	Ala	Tyr	Arg	Thr	Glu	Gly	Gly	Tyr	Tyr	Gln	Ile	Thr

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Phe	Ile	Val	Val	Lys	Asp	Ser	Ala	Gly	Asp	Ser	Asp	Val	Val	Val	Gln
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Leu	Gly	Asp	Thr	Thr	Thr	Leu	Glu	Asp	Pro	Ser	Ile	Ile	Ala	Glu	Ile
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<210> 5383

<211> 2027

<212> DNA

<213> Homo sapiens

<400> 5383

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<211> 508

<212> PRT

<213> Homo sapiens

<400> 5384

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		20					25						30		
Leu	Asp	Arg	Pro	Gln	Gln	Trp	Leu	Gln	Leu	Val	Leu	Leu	Pro	Pro	Ala
	35					40					45				
Leu	Phe	Ile	Pro	Ser	Thr	Glu	Asn	Glu	Glu	Gln	Arg	Leu	Ala	Ser	Ala

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 Ser Glu Gly Glu Asp Glu Leu Cys Phe Leu Arg Ala Asn Glu Cys Lys
 100 105 110
 Thr Gly Phe Cys His Leu Tyr Lys Val Thr Ala Val Leu Lys Ser Gln
 115 120 125
 Gly Tyr Asp Trp Ser Glu Pro Phe Ser Pro Gly Glu Gly Glu Gln Ser
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 Leu Thr Asn Ala Ile Trp Val Asn Glu Glu Thr Lys Leu Val Tyr Phe
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 Gln Gly Thr Lys Asp Thr Pro Leu Glu His His Leu Tyr Val Val Ser
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 Tyr Glu Ala Ala Gly Glu Ile Val Arg Leu Thr Thr Pro Gly Phe Ser
 180 185 190
 His Ser Cys Ser Met Ser Gln Asn Phe Asp Met Phe Val Ser His Tyr
 195 200 205
 Ser Ser Val Ser Thr Pro Pro Cys Val His Val Tyr Lys Leu Ser Gly
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 Pro Asp Asp Asp Pro Leu His Lys Gln Pro Arg Phe Trp Ala Ser Met
 225 230 235 240
 Met Glu Ala Ala Lys Ile Phe His Phe His Thr Arg Ser Asp Val Arg
 245 250 255
 Leu Tyr Gly Met Ile Tyr Lys Pro His Ala Leu Gln Pro Gly Lys Lys
 260 265 270
 His Pro Thr Val Leu Phe Val Tyr Gly Gly Pro Gln Val Gln Leu Val
 275 280 285
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 Ser Leu Gly Tyr Ala Val Val Val Ile Asp Gly Arg Gly Ser Cys Gln
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 Glu Ile Glu Asp Gln Val Glu Gly Leu Gln Phe Val Ala Glu Lys Tyr
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 355 360 365
 Gly Phe Leu Ser Leu Met Gly Leu Ile His Lys Pro Gln Val Phe Lys
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 Val Ala Ile Ala Gly Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr
 385 390 395 400
 Gly Tyr Thr Glu Arg Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly
 405 410 415
 Tyr Glu Ala Gly Ser Val Ala Leu His Val Glu Lys Leu Pro Asn Glu
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 Pro Asn Arg Leu Leu Ile Leu His Gly Phe Leu Asp Glu Asn Val His
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 Phe Phe His Thr Asn Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys
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 Pro Tyr Gln Leu Gln Val Ala Leu Pro Pro Val Ser Pro Gln Ile Tyr
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<210> 5385

<211> 314

<212> DNA

<213> Homo sapiens

<400> 5385

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<210> 5386

<211> 100

<212> PRT

<213> Homo sapiens

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20 25 30

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35 40 45

Ala Gly Trp Leu Ala Arg Leu Gly Gln Pro Gly Leu Leu Gly Pro Tyr

50 55 60

Ala Ala Pro Thr Phe His Phe Leu Glu Met His Pro His Leu Gln Glu

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<210> 5387

<211> 375

<212> DNA

<213> Homo sapiens

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<211> 125

<212> PRT

<213> Homo sapiens

<400> 5388

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			20					25					30		
Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Met	Thr	Leu	Ile	Ile	Leu	Ile	Val
		35					40					45			
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	50					55				60					
Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe	Cys	Leu	Ser	Ala	Ser
65					70				75					80	
Ile	Ile	Tyr	Pro	Thr	Tyr	Val	Gln	Phe	Leu	Ser	His	Gly	Arg	Ser	
			85					90					95		
Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser	Cys	Ile	Ala	Cys	Val
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<211> 1711

<212> DNA

<213> Homo sapiens

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<211> 118

<212> PRT

<213> Homo sapiens

<400> 5390

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Pro Lys Asn Ser Ser Val Ile Val Arg Arg Ile Pro Ile Gly Gly Val
65      70      75      80
Lys Ser Thr Ser Lys Thr Tyr Val Ile Ser Arg Thr Glu Pro Ala Met
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<212> DNA

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<212> PRT

<213> Homo sapiens

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<211> 354

<212> PRT

<213> Homo sapiens

<400> 5394

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<210> 5395

<211> 3711

<212> DNA

<213> Homo sapiens

<400> 5395

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<211> 760

<212> PRT

<213> Homo sapiens

<400> 5396

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Leu Glu Met Glu Asn Glu Asn Leu Val Glu Asn Gly Ala Asp Ser Asp		
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<210> 5397

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5397

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<210> 5398

<211> 154

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<213> Homo sapiens

<400> 5398

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<210> 5399

<211> 835

<212> DNA

<213> Homo sapiens

<400> 5399

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 480
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<210> 5400

<211> 186

<212> PRT

<213> Homo sapiens

<400> 5400

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Pro	Gln	Gln	Ser	Ser	Pro	Tyr	Pro	Gly	Gly	Ser	Tyr	Gly	Pro	Pro	Gly
			50					55				60			
Pro	Gln	Arg	Tyr	Pro	Ile	Gly	Ile	Gln	Gly	Arg	Thr	Pro	Gly	Ala	Met
65					70					75					80
Ala	Gly	Met	Gln	Tyr	Pro	Gln	Gln	Gln	Met	Pro	Pro	Gln	Tyr	Gly	Gln
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Gln	Gly	Val	Ser	Gly	Tyr	Cys	Gln	Gln	Gly	Gln	Gln	Pro	Tyr	Tyr	Ser
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Ser	Gln	Ser	Gln	Gln	Arg	Tyr	Gln	Pro	Gln	Gln	Asp	Met	Ser	Gln	Glu
			130					135					140		
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His	Glu	Asp	Leu	Asn	Leu	Ile	Gln	Gln	Glu	Arg	Pro	Ser	Ser	Leu	Pro
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<210> 5401

<211> 2674

<212> DNA

<213> Homo sapiens

<400> 5401

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1680

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<211> 507

<212> PRT

<213> Homo sapiens

<400> 5402

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			20					25					30		
Pro	Arg	His	Val	Ala	Asp	Met	Val	Ile	Ser	Glu	Ser	Met	Asp	Ile	Leu
		35				40					45				
Phe	Arg	Ile	Arg	Gly	Gly	Leu	Asp	Leu	Ala	Phe	Gln	Leu	Ala	Thr	Pro
	50				55					60					
Asn	Glu	Ile	Phe	Leu	Lys	Lys	Ala	Leu	Lys	His	Val	Leu	Ser	Asp	Leu
65				70					75					80	
Ser	Thr	Lys	Leu	Ser	Ser	Asn	Ala	Leu	Val	Phe	Arg	Ile	Cys	His	Ser
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<210> 5403

<211> 451

<212> DNA

<213> Homo sapiens

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<211> 150

<212> PRT

<213> Homo sapiens

<400> 5404

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			20					25					30		
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		35					40					45			
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	50					55					60				
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Ala	Ser	Leu	Arg	Ala	Ala	Ser	Pro	Ala	Ala	Ser	Ser	Ser	Pro	Trp	Ala
			85						90					95	
Arg	Val	Pro	Cys	Ser	Arg	Ala	Arg	Arg	Pro	Lys	Ser	Ala	Glu	Leu	Leu
			100					105					110		
Arg	Ile	Pro	Gly	Thr	Ser	Thr	Arg	Pro	Lys	Lys	Glu	Arg	Gly	Cys	Pro
		115					120					125			
Ser	Pro	Gly	Leu	Pro	Ala	Ala	Gly	Pro	Gly	Pro	Ser	Pro	Ala	Gly	Arg
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<211> 1609

<212> DNA

<213> Homo sapiens

<400> 5405

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 <211> 291
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Lys Tyr Cys Ser Ala Lys Ala Arg His Ser Trp Thr Lys Asp Arg Arg
 50 55 60
 Ala Met Arg Val Met Ser Ile Glu Arg Lys Lys Trp Met Asn Ile Arg
 65 70 75 80
 Pro Leu Pro Thr Lys Lys Gln Met Pro Leu Gln Phe Asp Leu Cys Asn
 85 90 95
 His Ile Ala Ser Gly Lys Lys Cys Gln Tyr Val Gly Asn Cys Ser Phe
 100 105 110
 Ala His Ser Pro Glu Glu Arg Glu Val Trp Thr Tyr Met Lys Glu Asn
 115 120 125
 Gly Ile Gln Asp Met Glu Gln Phe Tyr Glu Leu Trp Leu Lys Ser Gln
 130 135 140
 Lys Asn Glu Lys Ser Glu Asp Ile Ala Ser Gln Ser Asn Lys Glu Asn
 145 150 155 160
 Gly Lys Gln Ile His Met Pro Thr Asp Tyr Ala Glu Val Thr Val Asp
 165 170 175
 Phe His Cys Trp Met Cys Gly Lys Asn Cys Asn Ser Glu Lys Gln Trp
 180 185 190
 Gln Gly His Ile Ser Ser Glu Lys His Lys Glu Lys Val Phe His Thr
 195 200 205
 Glu Asp Asp Gln Tyr Cys Trp Gln His Arg Phe Pro Thr Gly Tyr Phe
 210 215 220
 Ser Ile Cys Asp Arg Tyr Met Asn Gly Thr Cys Pro Glu Gly Asn Ser
 225 230 235 240
 Cys Lys Phe Ala His Gly Asn Ala Glu Leu His Glu Trp Glu Glu Arg
 245 250 255
 Arg Asp Ala Leu Lys Met Lys Leu Asn Lys Ala Arg Lys Asp His Leu
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 <211> 2010
 <212> DNA
 <213> Homo sapiens

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<210> 5408

<211> 335

<212> PRT

<213> Homo sapiens

<400> 5408

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			20					25					30		
Lys	Glu	Met	Val	Leu	Ser	Glu	Lys	Val	Ser	Gln	Leu	Met	Glu	Trp	Thr
		35					40					45			
Asn	Lys	Arg	Pro	Val	Ile	Arg	Met	Asn	Gly	Asp	Lys	Phe	Arg	Arg	Leu
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Leu	Gln	Leu	His	Arg	Gln	Cys	Val	Val	Cys	Lys	Gln	Ala	Asp	Glu	Glu
			85						90				95		
Phe	Gln	Ile	Leu	Ala	Asn	Ser	Trp	Arg	Tyr	Ser	Ser	Ala	Phe	Thr	Asn
			100					105					110		
Arg	Ile	Phe	Phe	Ala	Met	Val	Asp	Phe	Asp	Glu	Gly	Ser	Asp	Val	Phe
		115					120					125			
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<210> 5409

<211> 2019

<212> DNA

<213> Homo sapiens

<400> 5409

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<213> Homo sapiens

<400> 5410

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<212> DNA

<213> Homo sapiens

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 1980
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<210> 5418

<211> 528

<212> PRT

<213> Homo sapiens

<400> 5418

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Lys	Gly	Pro	Val	Ala	Val	Thr	Gly	Ala	Ser	Thr	Pro	Glu	Gly	Thr	Ala					
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Pro	Pro	Pro	Pro	Ala	Ala	Pro	Ala	Pro	Pro	Lys	Gly	Glu	Lys	Glu	Gly					
			115					120					125							
Gln	Arg	Pro	Thr	Gln	Pro	Val	Tyr	Gln	Ile	Gln	Asn	Arg	Gly	Met	Gly					
			130				135				140									
Thr	Ala	Ala	Pro	Ala	Ala	Met	Asp	Pro	Val	Val	Gly	Gln	Ala	Lys	Leu					
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			180					185					190							
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Val	Glu	Met	Gln	Ser	Leu	Gln	Ile	Ala	Ala	Phe	Leu	Phe	Thr	Val	Cys					
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Arg	Leu	Trp	Asp	Leu	Gly	Cys	Lys	Cys	Lys	Ser	Asn	Ser	His	Ser	Pro					
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Gln	Thr	Pro	Arg	Phe	Leu	Gln	Thr	Ala	Glu	Met	Val	Lys	Pro	Ser	Thr					
			340					345					350							
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Thr	Glu	Tyr	Tyr	Pro	His	Leu	Val	Phe	Leu	Gln	Asn	Lys	Ala	Arg	Arg					
			370			375					380									
Glu	Asp	Phe	Cys	Pro	Arg	Lys	Leu	Arg	Gln	Met	His	Leu	Met	Ile	Asp					
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Gln	Leu	Met	Ala	His	Ser	His	Leu	Arg	Tyr	Lys	Gly	Thr	Leu	Ser	Met					
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<210> 5419

<211> 989

<212> DNA

<213> Homo sapiens

<400> 5419

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<210> 5420

<211> 174

<212> PRT

<213> Homo sapiens

<400> 5420

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 Ile Ala Arg Gly Gln Arg Tyr Tyr Gly Phe Gly Arg Thr Val Tyr Pro
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 100 105 110
 Arg Thr Pro Phe Arg Leu Ser Glu Lys Asp Arg Met Glu Leu Leu Glu
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<210> 5421

<211> 1239

<212> DNA

<213> Homo sapiens

<400> 5421

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<211> 276

<212> PRT

<213> Homo sapiens

<400> 5422

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Thr	Gln	Pro	Leu	Gly	Leu	Leu	Arg	Leu	Leu	Gln	Leu	Val	Ser	Thr	Cys
		35					40					45			
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65					70					75					80
Ile	Ile	Leu	Ile	Val	Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro	Leu
				85					90					95	
Ser	Trp	Arg	Asn	Phe	Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe
			100					105					110		
Cys	Leu	Ser	Ala	Ser	Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu
		115				120						125			
Ser	His	Gly	Arg	Ser	Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser
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Cys	Ile	Ala	Cys	Val	Ala	Tyr	Ala	Thr	Glu	Val	Ala	Trp	Thr	Arg	Ala
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Arg	Pro	Gly	Glu	Ile	Thr	Gly	Tyr	Met	Ala	Thr	Val	Pro	Gly	Leu	Leu
			165						170					175	
Lys	Val	Leu	Glu	Thr	Phe	Val	Ala	Cys	Ile	Ile	Phe	Ala	Phe	Ile	Ser
			180					185					190		
Asp	Pro	Asn	Leu	Tyr	Gln	His	Gln	Pro	Ala	Leu	Glu	Trp	Cys	Val	Ala
		195				200						205			
Val	Tyr	Ala	Ile	Cys	Phe	Ile	Leu	Ala	Ala	Ile	Ala	Ile	Leu	Leu	Asn
		210				215						220			
Leu	Gly	Glu	Cys	Thr	Asn	Val	Leu	Pro	Ile	Pro	Phe	Pro	Ser	Phe	Leu
225					230					235					240
Ser	Gly	Leu	Ala	Leu	Cys	Leu	Ser	Ser	Ser	Met	Pro	Pro	Pro	Leu	Phe
			245						250					255	
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<211> 2427
<212> DNA
<213> Homo sapiens

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<210> 5424

<211> 570

<212> PRT

<213> Homo sapiens

<400> 5424

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			20					25				30			
Lys	Tyr	Gln	Leu	Leu	Val	Tyr	His	Ala	Asp	Ser	Leu	Phe	His	Asp	Lys
		35					40					45			
Glu	Tyr	Arg	Asn	Ala	Val	Ser	Lys	Tyr	Thr	Met	Ala	Leu	Gln	Gln	Lys
	50					55				60					
Lys	Ala	Leu	Ser	Lys	Thr	Ser	Lys	Val	Arg	Pro	Ser	Thr	Gly	Asn	Ser

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Ala	Ser	Thr	Pro	Gln	Ser	Gln	Cys	Leu	Pro	Ser	Glu	Ile	Glu	Val	Lys
				85					90					95	
Tyr	Lys	Met	Ala	Glu	Cys	Tyr	Thr	Met	Leu	Lys	Gln	Asp	Lys	Asp	Ala
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Ile	Ala	Ile	Leu	Asp	Gly	Ile	Pro	Ser	Arg	Gln	Arg	Thr	Pro	Lys	Ile
		115				120					125				
Asn	Met	Met	Leu	Ala	Asn	Leu	Tyr	Lys	Lys	Ala	Gly	Gln	Glu	Arg	Pro
	130					135					140				
Ser	Val	Thr	Ser	Tyr	Lys	Glu	Val	Leu	Arg	Gln	Cys	Pro	Leu	Ala	Leu
145				150					155					160	
Asp	Ala	Ile	Leu	Gly	Leu	Leu	Ser	Leu	Ser	Val	Lys	Gly	Ala	Glu	Val
			165					170					175		
Ala	Ser	Met	Thr	Met	Asn	Val	Ile	Gln	Thr	Val	Pro	Asn	Leu	Asp	Trp
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Leu	Ser	Val	Trp	Ile	Lys	Ala	Tyr	Ala	Phe	Val	His	Thr	Gly	Asp	Asn
	195					200					205				
Ser	Arg	Ala	Ile	Ser	Thr	Ile	Cys	Ser	Leu	Glu	Lys	Lys	Ser	Leu	Leu
	210					215					220				
Arg	Asp	Asn	Val	Asp	Leu	Leu	Gly	Ser	Leu	Ala	Asp	Leu	Tyr	Phe	Arg
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Ala	Gly	Asp	Asn	Lys	Asn	Ser	Val	Leu	Lys	Phe	Glu	Gln	Ala	Gln	Met
			245						250					255	
Leu	Asp	Pro	Tyr	Leu	Ile	Lys	Gly	Met	Asp	Val	Tyr	Gly	Tyr	Leu	Leu
		260						265					270		
Ala	Arg	Glu	Gly	Arg	Leu	Glu	Asp	Val	Glu	Asn	Leu	Gly	Cys	Arg	Leu
	275					280						285			
Phe	Asn	Ile	Ser	Asp	Gln	His	Ala	Glu	Pro	Trp	Val	Val	Ser	Gly	Cys
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His	Ser	Phe	Tyr	Ser	Lys	Arg	Tyr	Ser	Arg	Ala	Leu	Tyr	Leu	Gly	Ala
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		340					345						350		
Phe	Arg	Glu	Ala	Ile	Arg	Leu	Ala	Pro	Cys	Arg	Leu	Asp	Cys	Tyr	Glu
	355					360						365			
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Lys	Ala	Lys	Thr	Leu	Leu	Asp	Lys	Ala	Leu	Thr	Gln	Arg	Pro	Asp	Tyr
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Ile	Lys	Ala	Val	Val	Lys	Lys	Ala	Glu	Leu	Leu	Ser	Arg	Glu	Gln	Lys
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Tyr	Glu	Asp	Gly	Ile	Ala	Leu	Leu	Arg	Asn	Ala	Leu	Ala	Asn	Gln	Ser
	450					455					460				
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Ala Pro Trp Pro Gln Trp Pro Ala Leu Leu					
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 480
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 gccnacgggg tgggtggatgg gatctaccgg ctctcaggcg tgtcttccaa catccagagg
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<210> 5426
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 5426
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 1 5 10 15
 Pro Ser Cys Ala Pro Ala Leu Leu Gly Ser Gly Cys Gly Ser Gly Glu
 20 25 30
 Ser Cys Asp Arg Gly Cys Leu Ala Ile Leu Ala Ser Thr Ser Ala
 35 40 45
 Thr Gln Ala Arg Met Cys Pro Val Leu Arg Cys Cys Ser Glu Phe Ile
 50 55 60
 Glu Ala Xaa Gly Val Val Asp Gly Ile Tyr Arg Leu Ser Gly Val Ser

```

65          70          75          80
Ser Asn Ile Gln Arg Leu Arg His Glu Phe Asp Ser Glu Arg Ile Pro
          85          90          95
Glu Leu

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<210> 5427
<211> 366
<212> DNA
<213> Homo sapiens
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<400> 5427
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acaaacaaat caaaaattct tgttgagtac ctgctacatg ctaagtgtc ctctaggtgc
120
tgaggataca tcagaggggca aaatggatac agatactctg aaaaaacgtg cattctagct
180
gggattgggt cctccacact gtgtccaaaa ggtatggttg ggttgctgaa gtagataaac
240
tggtattggc agcaggaaca gcatttatgg aacagagggg aagacacatt caaggaatga
300
aacatcgtct _ggctggatca tgaaatgcaa ggcagatatg gcacaggagg cagacaaagg
360
gttgaa
366
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<210> 5428
<211> 101
<212> PRT
<213> Homo sapiens
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<400> 5428
Met Phe His Ser Leu Asn Val Ser Ser Pro Leu Phe His Lys Cys Cys
 1          5          10          15
Ser Cys Cys Gln Tyr Gln Phe Ile Tyr Phe Ser Asn Pro Asn Ile Pro
 20          25          30
Phe Gly His Ser Val Glu Asp Pro Ile Pro Ala Arg Met His Val Phe
 35          40          45
Ser Glu Tyr Leu Tyr Pro Phe Cys Pro Leu Met Tyr Pro Gln His Leu
 50          55          60
Glu Glu His Leu Ala Cys Ser Arg Tyr Ser Thr Arg Ile Phe Asp Leu
65          70          75          80
Phe Val Gly Leu Phe Met Thr Glu Ser Cys Ser Val Ala Gln Thr Gly
 85          90          95
Val Gln Tyr Ser Asp
100

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<210> 5429
<211> 612
<212> DNA
<213> Homo sapiens
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<400> 5429

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 120
 gcgctgagct gggggaggcc ccgggctccc gcccagcct cgaagccccg cccaggctg
 180
 gatttgaatt gcttgtggct ccgcccacag cccattttcc tctggaagct gagaccccg
 240
 cccgtgccag ctgccagcc cctgacaggt cctctgccac tctaagtcca ggccccgccc
 300
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 420
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 480
 ctcagatccc ctcaccctg gccagggatc cctctaacc accgtgtccc gactgctgac
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 600
 gcccatacgc gt
 612

<210> 5430

<211> 94

<212> PRT

<213> Homo sapiens

<400> 5430

Pro	Ala	Gly	Gly	Lys	Ala	Pro	Gly	Gln	His	Gly	Gly	Phe	Val	Val	Thr
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Val	Lys	Gln	Glu	Arg	Gly	Glu	Gly	Pro	Arg	Ala	Gly	Glu	Lys	Gly	Ser
		20					25					30			
His	Glu	Glu	Glu	Val	Arg	Val	Pro	Ala	Leu	Ser	Trp	Gly	Arg	Pro	Arg
		35				40					45				
Ala	Pro	Ala	Pro	Ala	Ser	Lys	Pro	Arg	Pro	Arg	Leu	Asp	Leu	Asn	Cys
		50				55					60				
Leu	Trp	Leu	Arg	Pro	Gln	Pro	Ile	Phe	Leu	Trp	Lys	Leu	Arg	Pro	Arg
65				70				75						80	
Pro	Val	Pro	Ala	Ala	Thr	Pro	Leu	Thr	Gly	Pro	Leu	Pro	Leu		
			85					90							

<210> 5431

<211> 3005

<212> DNA

<213> Homo sapiens

<400> 5431

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 120
 gccattgtct gggcacccaa cctgctacgg tccatggagc tggagtcagt gggaatgggt
 180

ggcgcgccgg cggtccggga agttcgggtg cagtcgggtg tgggtggagt tctgctcacc
240
catgtggacg tcctgttcag cgacaccttc acctccgccg gcctcgaccc tgcaggccgc
300
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360
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420
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480
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600
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720
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1620
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1680
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1740
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<210> 5432

<211> 863

<212> PRT

<213> Homo sapiens

<400> 5432

Xaa	His	Asp	Val	Ile	Gln	Gln	Leu	Pro	Pro	Pro	His	Tyr	Arg	Thr	Leu
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Glu	Tyr	Leu	Leu	Arg	His	Leu	Ala	Arg	Met	Ala	Arg	His	Ser	Ala	Asn
			20					25					30		
Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro	Asn	Leu

	35					40					45				
Leu	Arg	Ser	Met	Glu	Leu	Glu	Ser	Val	Gly	Met	Gly	Gly	Ala	Ala	Ala
	50					55					60				
Phe	Arg	Glu	Val	Arg	Val	Gln	Ser	Val	Val	Val	Glu	Phe	Leu	Leu	Thr
65					70					75					80
His	Val	Asp	Val	Leu	Phe	Ser	Asp	Thr	Phe	Thr	Ser	Ala	Gly	Leu	Asp
				85					90					95	
Pro	Ala	Gly	Arg	Cys	Leu	Leu	Pro	Arg	Pro	Lys	Ser	Leu	Ala	Gly	Ser
			100					105					110		
Cys	Pro	Ser	Thr	Arg	Leu	Leu	Thr	Leu	Glu	Glu	Ala	Gln	Ala	Arg	Thr
		115					120					125			
Gln	Gly	Arg	Leu	Gly	Thr	Pro	Thr	Glu	Pro	Thr	Thr	Pro	Lys	Ala	Pro
	130					135					140				
Ala	Ser	Pro	Ala	Glu	Arg	Arg	Lys	Gly	Glu	Arg	Gly	Glu	Lys	Gln	Arg
145					150					155					160
Lys	Pro	Gly	Gly	Ser	Ser	Trp	Lys	Thr	Phe	Phe	Ala	Leu	Gly	Arg	Gly
				165					170					175	
Pro	Ser	Val	Pro	Arg	Lys	Lys	Pro	Leu	Pro	Trp	Leu	Gly	Gly	Thr	Arg
			180					185					190		
Ala	Pro	Pro	Gln	Pro	Ser	Gly	Ser	Arg	Pro	Asp	Thr	Val	Thr	Leu	Arg
		195					200					205			
Ser	Ala	Lys	Ser	Glu	Glu	Ser	Leu	Ser	Ser	Gln	Ala	Ser	Gly	Ala	Gly
						215					220				
Leu	Gln	Arg	Leu	His	Arg	Leu	Arg	Arg	Pro	His	Ser	Ser	Ser	Asp	Ala
225					230					235					240
Phe	Pro	Val	Gly	Pro	Ala	Pro	Ala	Gly	Ser	Cys	Glu	Ser	Leu	Ser	Ser
				245					250					255	
Ser	Ser	Ser	Ser	Glu	Ser	Ser	Ser	Ser	Glu	Ser	Ser	Ser	Ser	Ser	Ser
			260					265					270		
Glu	Ser	Ser	Ala	Ala	Gly	Leu	Gly	Ala	Leu	Ser	Gly	Ser	Pro	Ser	His
		275					280					285			
Arg	Thr	Ser	Ala	Trp	Leu	Asp	Asp	Gly	Asp	Glu	Leu	Asp	Phe	Ser	Pro
						295					300				
Pro	Arg	Cys	Leu	Glu	Gly	Leu	Arg	Gly	Leu	Asp	Phe	Asp	Pro	Leu	Thr
305					310					315					320
Phe	Arg	Cys	Ser	Ser	Pro	Thr	Pro	Gly	Asp	Pro	Ala	Pro	Pro	Ala	Ser
				325					330					335	
Pro	Ala	Pro	Pro	Ala	Pro	Ala	Ser	Ala	Phe	Pro	Pro	Arg	Val	Thr	Pro
			340					345					350		
Gln	Ala	Ile	Ser	Pro	Arg	Gly	Pro	Thr	Ser	Pro	Ala	Ser	Pro	Ala	Ala
		355					360					365			
Leu	Asp	Ile	Ser	Glu	Pro	Leu	Ala	Val	Ser	Val	Pro	Pro	Ala	Val	Leu
		370				375					380				
Glu	Leu	Leu	Gly	Ala	Gly	Gly	Ala	Pro	Ala	Ser	Ala	Thr	Pro	Thr	Pro
385					390					395					400

465 470 475 480
 Ala Glu Arg Ala Gln Gln Val Ala Glu Gln Gln Ser Gln Gln Glu Cys
 485 490 495
 Gly Gly Thr Pro Pro Ala Ser Gln Ser Pro Phe His Arg Ser Leu Ser
 500 505 510
 Leu Glu Val Gly Gly Glu Pro Leu Gly Thr Ser Gly Ser Gly Pro Pro
 515 520 525
 Pro Asn Ser Leu Ala His Pro Gly Ala Trp Val Pro Gly Pro Pro Pro
 530 535 540
 Tyr Leu Pro Arg Gln Gln Ser Asp Gly Ser Leu Leu Arg Ser Gln Arg
 545 550 555 560
 Pro Met Gly Thr Ser Arg Arg Gly Leu Arg Gly Pro Ala Gln Val Ser
 565 570 575
 Ala Gln Leu Arg Ala Gly Gly Gly Gly Arg Asp Ala Pro Glu Ala Ala
 580 585 590
 Ala Gln Ser Pro Cys Ser Val Pro Ser Gln Val Pro Thr Pro Gly Phe
 595 600 605
 Phe Ser Pro Ala Pro Arg Glu Cys Leu Pro Pro Phe Leu Gly Val Pro
 610 615 620
 Lys Pro Gly Leu Tyr Pro Leu Gly Pro Pro Ser Phe Gln Pro Ser Ser
 625 630 635 640
 Pro Ala Pro Val Trp Arg Ser Ser Leu Gly Pro Pro Ala Pro Leu Asp
 645 650 655
 Arg Gly Glu Asn Leu Tyr Tyr Glu Ile Gly Ala Ser Glu Gly Ser Pro
 660 665 670
 Tyr Ser Gly Pro Thr Arg Ser Trp Ser Pro Phe Arg Ser Met Pro Pro
 675 680 685
 Asp Arg Leu Asn Ala Ser Tyr Gly Met Leu Gly Gln Ser Pro Pro Leu
 690 695 700
 His Arg Ser Pro Asp Phe Leu Leu Ser Tyr Pro Pro Ala Pro Ser Cys
 705 710 715 720
 Phe Pro Pro Asp His Leu Gly Tyr Ser Ala Pro Gln His Pro Ala Arg
 725 730 735
 Arg Pro Thr Pro Pro Glu Pro Leu Tyr Val Asn Leu Ala Leu Gly Pro
 740 745 750
 Arg Gly Pro Ser Pro Ala Ser Ser Ser Ser Ser Ser Pro Pro Ala His
 755 760 765
 Pro Arg Ser Arg Ser Asp Pro Gly Pro Pro Val Pro Arg Leu Pro Gln
 770 775 780
 Lys Gln Arg Ala Pro Trp Gly Pro Arg Thr Pro His Arg Val Pro Gly
 785 790 795 800
 Pro Trp Gly Pro Pro Glu Pro Leu Leu Leu Tyr Arg Ala Ala Pro Pro
 805 810 815
 Ala Tyr Gly Arg Gly Gly Glu Leu His Arg Gly Ser Leu Tyr Arg Asn
 820 825 830
 Gly Gly Gln Arg Gly Glu Gly Ala Gly Pro Pro Pro Pro Tyr Pro Thr
 835 840 845
 Pro Ser Trp Ser Leu His Ser Glu Gly Gln Thr Arg Ser Tyr Cys
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<210> 5433

<211> 385

<212> DNA

<213> Homo sapiens

<400> 5433

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120
ctgggtataa gaagctcctc tgggtctccag agttctcgga gtaaccctc catccaagcc
180
acgtcaata agactgtgct ttctcttcc ttaaataacc acccacagac atctgttccc
240
aacgcctctg ctcttcaccc ttgctcctg ctgttttccc ttagcaacc atctctttcc
300
accacaaacc tgagcggccc gtctcggcgt cggcagcctc ccgtcagccc tctcagctt
360
tctcctggcc ctgaagcaca tcaag
385

<210> 5434

<211> 128

<212> PRT

<213> Homo sapiens

<400> 5434

Asp	Leu	Thr	Asn	Leu	His	Tyr	Ser	Thr	Pro	Leu	Pro	Ala	Ser	Leu	Asp
1				5					10					15	
Thr	Thr	Asp	His	His	Phe	Gly	Ser	Met	Ser	Val	Gly	Asn	Ser	Val	Asn
			20					25					30		
Asn	Ile	Pro	Ala	Ala	Met	Thr	His	Leu	Gly	Ile	Arg	Ser	Ser	Ser	Gly
		35					40					45			
Leu	Gln	Ser	Ser	Arg	Ser	Asn	Pro	Ser	Ile	Gln	Ala	Thr	Leu	Asn	Lys
	50					55					60				
Thr	Val	Leu	Ser	Ser	Ser	Leu	Asn	Asn	His	Pro	Gln	Thr	Ser	Val	Pro
65					70					75				80	
Asn	Ala	Ser	Ala	Leu	His	Pro	Ser	Leu	Arg	Leu	Phe	Ser	Leu	Ser	Asn
			85						90					95	
Pro	Ser	Leu	Ser	Thr	Thr	Asn	Leu	Ser	Gly	Pro	Ser	Arg	Arg	Arg	Gln
			100						105				110		
Pro	Pro	Val	Ser	Pro	Leu	Thr	Leu	Ser	Pro	Gly	Pro	Glu	Ala	His	Gln
			115					120					125		

<210> 5435

<211> 617

<212> DNA

<213> Homo sapiens

<400> 5435

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120
ccttgataa gtatactttg tataacttct ggcaaaccat aattatgaac tcacattact
180
atagtactat aatactgcag aaagggatct tgcgtttcag aaatgtcact catccagttt
240

tctctccctt tctctaacc catctccctc ccaggctcat ggtttctggt gcaatcctct
 300
 ttctccttac acaaggcaag aagttttctt accaatagat cagacctgtg aaggactgcc
 360
 cgacatgata tgatatgggt gttcttcatt ttgggctgta gtattttaaa gtagagggtt
 420
 gctctgatgg tcccatcact gcttgccatt gtctttccct ttgctctagc tatcagggga
 480
 tggtgcttta agtttggtcc ccaggcttta ctgccaagag ggaaattcat acccacttta
 540
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 600
 agttaccctt cacgcgt
 617

<210> 5436

<211> 119

<212> PRT

<213> Homo sapiens

<400> 5436

Met	Asn	Phe	Pro	Leu	Gly	Ser	Lys	Ala	Trp	Gly	Thr	Asn	Leu	Lys	Gln
1				5					10					15	
His	Pro	Leu	Ile	Ala	Arg	Ala	Lys	Gly	Lys	Thr	Met	Ala	Ser	Ser	Asp
			20					25					30		
Gly	Thr	Ile	Arg	Ala	Asn	Leu	Tyr	Phe	Lys	Ile	Leu	Gln	Pro	Lys	Met
		35				40					45				
Lys	Asn	Asn	His	Ile	Arg	Ser	Cys	Arg	Ala	Val	Leu	His	Arg	Ser	Asp
	50				55					60					
Leu	Leu	Val	Arg	Lys	Leu	Leu	Ala	Leu	Cys	Lys	Glu	Lys	Glu	Asp	Cys
65				70					75					80	
Asn	Arg	Asn	His	Glu	Pro	Gly	Arg	Glu	Met	Gly	Leu	Glu	Lys	Gly	Glu
			85					90					95		
Glu	Asn	Trp	Met	Ser	Asp	Ile	Ser	Glu	Thr	Gln	Asp	Pro	Phe	Leu	Gln
		100					105					110			
Tyr	Tyr	Ser	Thr	Ile	Val	Met									
			115												

<210> 5437

<211> 1422

<212> DNA

<213> Homo sapiens

<400> 5437

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 120
 ttctcggggg ttctgacctc ctgcagcctc ctcttgctc gggctgcca gatcttggcg
 180
 gctgaggctg gcttaccttc gagccgttcc ttcattgggat ttgctgctcc cttcaccaac
 240
 aagcgaaagg cttactcgga gcgtagaatc atgggggtact caatgcagga gatgtatgag
 300

gtggtgtcca acgtccagga gtatcgtgag tttgtgccct ggtgtaagaa gtctctggtg
 360
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 420
 gaacgttaca cctctgcagt ttccatggtc aaacctcaca tgggtcaaggc tgtttgtact
 480
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 540
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 600
 tcccagctgg ccaccatgtt ttttgatgag gttgtcaaac agaattgttc tgcctttgag
 660
 cgtcgggcag ccaccaagtt tgggtccagaa acagccatcc cccgtgaact gatgttccat
 720
 gaggtgcacc agacttgagg caagggattg ctccctgacc tcccttctac cccacttccc
 780
 tacacaattc tcttatttat ttggtttggc tctggttcca atttgaaagg agtctgtgtt
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 960
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 1020
 gttgtctctg gaccttatca agacacctta gtgtctgacc aggggacgat agtaactttt
 1080
 ctaaggattg aataaattga gcttttcttc tggcacagag gtactgagtg gtaagtaact
 1140
 tttaccctgc ctgagattcc tcaggagaaa aggcaacctg cctccagcct gaaatacata
 1200
 aagcctcatt ttaagactgt aagtccatgc tgcctggcta ctagagagca aggggctttc
 1260
 ttaccaccag tgctgaggag aaaagtactg aacggaaacg gagttgtctt tgtactcttg
 1320
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 1380
 gtgtgaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
 1422

<210> 5438

<211> 245

<212> PRT

<213> Homo sapiens

<400> 5438

Phe	Arg	Gly	Gly	Gly	Val	Leu	Tyr	Trp	Asp	Ala	Gly	Ala	Ala	Gly	Thr
1				5				10						15	
Gly	Ser	Asn	His	Ala	Leu	Gly	Ala	Asn	Val	Glu	Leu	Trp	Ile	Met	Leu
			20					25					30		
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Gly Ile Pro Ala Tyr Pro Arg Thr Cys Thr Val Asp Phe Ser Ile Ser
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Phe Glu Phe Arg Ser Leu Leu His Ser Gln Leu Ala Thr Met Phe Phe
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<210> 5439

<211> 4234

<212> DNA

<213> Homo sapiens

<400> 5439

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<211> 461

<212> PRT

<213> Homo sapiens

<400> 5440

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Lys	Gly	His	Phe	Ala	Glu	Leu	Ser	Gln	Leu	Glu	Met	Leu	Asn	Asp	
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Thr	Leu	Val	His	Gln	Ala	Pro	Ala	Arg	Ile	Leu	His	Lys	Lys	His	Thr
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Tyr	Val	His	Arg	Ser	Gly	Arg	Thr	Ala	Arg	Ala	Thr	Asn	Glu	Gly	Leu
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<211> 1635

<212> DNA

<213> Homo sapiens

<400> 5441

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<211> 250

<212> PRT

<213> Homo sapiens

<400> 5442

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Asp	Lys	Glu	Arg	His	Thr	Gln	Leu	Glu	Gln	Met	Phe	Arg	Asp	Ile	Ala
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Leu Ile Lys Val Ile Glu Ser Glu Asp Tyr Gly Gln Gln Leu Glu Ile				
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<211> 2021

<212> DNA

<213> Homo sapiens

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 2021

<210> 5444

<211> 438

<212> PRT

<213> Homo sapiens

<400> 5444

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			20					25						30	
Lys	Ile	Arg	Leu	Arg	Cys	Gln	Lys	Gly	Ile	Pro	Pro	Ser	Leu	Arg	Gly
			35				40					45			
Arg	Ala	Trp	Gln	Tyr	Leu	Ser	Gly	Gly	Lys	Val	Lys	Leu	Gln	Gln	Asn
			50			55					60				
Pro	Gly	Lys	Phe	Asp	Glu	Leu	Asp	Met	Ser	Pro	Gly	Asp	Pro	Lys	Trp
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Leu	Asp	Val	Ile	Glu	Arg	Asp	Leu	His	Arg	Gln	Phe	Pro	Phe	His	Glu

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Met	Phe	Val	Ser	Arg	Gly	Gly	His	Gly	Gln	Gln	Asp	Leu	Phe	Arg	Val	
			100					105					110			
Leu	Lys	Ala	Tyr	Thr	Leu	Tyr	Arg	Pro	Glu	Glu	Gly	Tyr	Cys	Gln	Ala	
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Gln	Ala	Pro	Ile	Ala	Ala	Val	Leu	Leu	Met	His	Met	Pro	Ala	Glu	Gln	
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			180					185					190			
Gln	Lys	Ile	Asp	Pro	Leu	Leu	Tyr	Met	Thr	Glu	Trp	Phe	Met	Cys	Ala	
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Phe	Ser	Arg	Thr	Leu	Pro	Trp	Ser	Ser	Val	Leu	Arg	Val	Trp	Asp	Met	
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Phe	Phe	Cys	Glu	Gly	Val	Lys	Ile	Ile	Phe	Arg	Val	Gly	Leu	Val	Leu	
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Leu	Lys	His	Ala	Leu	Gly	Ser	Pro	Glu	Lys	Val	Lys	Ala	Cys	Gln	Gly	
				245					250					255		
Gln	Tyr	Glu	Thr	Ile	Glu	Arg	Leu	Arg	Ser	Leu	Ser	Pro	Lys	Ile	Met	
			260					265					270			
Gln	Glu	Ala	Phe	Leu	Val	Gln	Glu	Val	Val	Glu	Leu	Pro	Val	Thr	Glu	
		275					280					285				
Arg	Gln	Ile	Glu	Arg	Glu	His	Leu	Ile	Gln	Leu	Arg	Arg	Trp	Gln	Glu	
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Thr	Arg	Gly	Glu	Leu	Gln	Cys	Arg	Ser	Pro	Pro	Arg	Leu	His	Gly	Ala	
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Lys	Ala	Ile	Leu	Asp	Ala	Glu	Pro	Gly	Pro	Arg	Pro	Ala	Leu	Gln	Pro	
				325					330					335		
Ser	Pro	Ser	Ile	Arg	Leu	Pro	Leu	Asp	Ala	Pro	Leu	Pro	Gly	Ser	Lys	
			340					345					350			
Ala	Lys	Pro	Lys	Pro	Pro	Lys	Gln	Ala	Gln	Lys	Glu	Gln	Arg	Lys	Gln	
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Met	Val	Val	Ala	Ala	Ala	Gly	Asp	Ala	Cys	Pro	Pro	Gln	His	Val	Pro	
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Pro	Lys	Asp	Ser	Ala	Pro	Lys	Asp	Ser	Ala	Pro	Gln	Asp	Leu	Ala	Pro	
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<210> 5445

<211> 1187

<212> DNA

<213> Homo sapiens

<400> 5445

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 360
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<210> 5446

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5446

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Glu	Ser	Lys	His	Thr	Thr	Cys	Ala	Lys	Val	Lys	Trp	Pro	Gln	Pro	Pro
			20					25					30		
Arg	Lys	Thr	Gly	Trp	Arg	Phe	Leu	Arg	Arg	Ser	Thr	His	Ser	Arg	His
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	50					55					60				
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65		70		75		80									
His	Ala	Asp	Ser	Asp	Met	Arg	Ala	His	Ser	Leu	Ser	His	Asp	Ser	Gln
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Thr	Val	Glu	Thr	Arg	Gln	Val	Gly	Leu	Gly	Cys					
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<210> 5447

<211> 1444

<212> DNA

<213> Homo sapiens

<400> 5447

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1260

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<210> 5448
 <211> 189
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Val Thr Asp Val Phe Gln Gly Ser Met Arg Ile Phe Thr Lys Lys Leu
 50 55 60
 Pro His Pro Asp Leu Pro Ala Glu Glu Lys Glu Gln Leu Leu His Asn
 65 70 75 80
 Asp Glu Tyr Gln Glu Thr Met Val Glu Ser Thr Phe Met Tyr Leu Thr
 85 90 95
 Leu Asp Leu Pro Thr Ala Pro Leu Tyr Lys Asp Glu Lys Glu Gln Leu
 100 105 110
 Ile Ile Pro Gln Val Pro Leu Phe Asn Ile Leu Ala Lys Phe Asn Gly
 115 120 125
 Ile Thr Glu Lys Glu Tyr Lys Thr Tyr Lys Glu Asn Phe Leu Lys Arg
 130 135 140
 Phe Gln Leu Thr Lys Leu Pro Pro Tyr Leu Ile Phe Cys Ile Lys Arg
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<210> 5449
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<210> 5450

<211> 293

<212> PRT

<213> Homo sapiens

<400> 5450

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			20					25					30		
Ile	Thr	Gln	Glu	Arg	Ile	Val	Phe	Leu	Asp	Thr	Gln	Pro	Ile	Leu	Ser
			35				40					45			
Pro	Ser	Ile	Leu	Asp	His	Leu	Ile	Asn	Asn	Asp	Arg	Lys	Leu	Pro	Pro
	50					55					60				
Glu	Tyr	Asn	Leu	Pro	His	Thr	Tyr	Val	Glu	Met	Gln	Ser	Leu	Gln	Ile

65					70					75				80
Ala	Ala	Phe	Leu	Phe	Thr	Val	Cys	His	Val	Gly	Ile	Xaa	Val	Gln
				85					90					95
Trp	Phe	Thr	Asp	Leu	Ser	Leu	Tyr	Arg	Phe	Leu	Gln	Thr	Ala	Glu
			100					105					110	
Val	Lys	Pro	Ser	Thr	Pro	Ser	Pro	Ser	His	Glu	Ser	Ser	Ser	Ser
		115					120					125		
Gly	Ser	Asp	Glu	Gly	Thr	Glu	Tyr	Tyr	Pro	His	Leu	Val	Phe	Phe
	130					135					140			Gln
Asn	Lys	Ala	Arg	Arg	Glu	Asp	Phe	Cys	Pro	Arg	Lys	Leu	Arg	Gln
145					150					155				160
His	Leu	Met	Ile	Asp	Gln	Leu	Met	Ala	His	Ser	His	Leu	Arg	Tyr
			165						170					175
Gly	Thr	Leu	Ser	Met	Leu	Gln	Cys	Asn	Val	Phe	Pro	Gly	Leu	Pro
		180						185				190		Pro
Asp	Phe	Leu	Asp	Ser	Glu	Val	Asn	Leu	Phe	Leu	Val	Pro	Phe	Met
	195						200					205		Asp
Ser	Glu	Ala	Glu	Ser	Glu	Asn	Pro	Pro	Arg	Ala	Gly	Pro	Gly	Ser
	210					215					220			Ser
Pro	Leu	Phe	Ser	Leu	Leu	Pro	Gly	Tyr	Arg	Gly	His	Pro	Ser	Phe
225					230					235				Gln
Ser	Leu	Val	Ser	Lys	Leu	Arg	Ser	Gln	Val	Met	Ser	Met	Ala	Arg
			245						250					255
Gln	Leu	Ser	His	Thr	Ile	Leu	Thr	Glu	Lys	Asn	Trp	Phe	His	Tyr
		260						265				270		Ala
Ala	Arg	Ile	Trp	Asp	Gly	Val	Arg	Lys	Ser	Ser	Ala	Leu	Ala	Glu
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<210> 5451

<211> 1184

<212> DNA

<213> Homo sapiens

<400> 5451

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540

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<210> 5452

<211> 206

<212> PRT

<213> Homo sapiens

<400> 5452

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			20					25					30		
Ser	Ser	Pro	Glu	Leu	Ser	Val	Ala	Phe	His	His	Ser	Gly	Pro	Ser	Cys
		35					40					45			
Leu	Ser	Pro	Ala	Leu	Ser	Gln	Thr	Thr	Gln	Lys	Ser	Gly	His	Leu	Trp
		50				55					60				
Ala	Pro	Gly	Met	Val	Thr	Glu	Glu	Lys	His	Ala	Val	Pro	Val	Ser	Pro
65					70					75				80	
Gly	Phe	Cys	Gln	Lys	Ile	Glu	Gln	Val	Gln	Leu	Thr	His	Cys	Tyr	Cys
			85						90					95	
Arg	Ser	Leu	Lys	Leu	Pro	Gly	Leu	Val	Leu	Asp	Pro	Ser	Arg	Asn	His
			100					105						110	
Gln	Val	Arg	His	Leu	Glu	Pro	Pro	Gly	Glu	Gly	Pro	Pro	Ser	Arg	Ala
		115					120						125		
Leu	Lys	Glu	Leu	His	Glu	Ile	Arg	Asn	Cys	Leu	Met	Lys	Cys	Ile	Ser
		130				135					140				
Leu	Tyr	Leu	Glu	Asp	Glu	Ala	Gln	Thr	Pro	Thr	Pro	Leu	Ser	Pro	Pro
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			165						170					175	
Leu	Gly	Glu	Val	Gly	Ala	Gly	Thr	Ile	Ser	Val	Pro	Ser	Thr	Leu	Thr
			180					185					190		
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<210> 5453
 <211> 1974
 <212> DNA
 <213> Homo sapiens

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<210> 5454

<211> 320

<212> PRT

<213> Homo sapiens

<400> 5454

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			20					25						30	
Arg	Ile	Asp	Ser	Lys	Ala	Trp	Arg	Glu	Thr	Leu	Thr	Leu	Gln	Lys	Gln
			35				40						45		
Leu	Arg	Tyr	Arg	Phe	Pro	Glu	Leu	Ala	Asp	Pro	Asp	Thr	Cys	Tyr	Gly
			50				55				60				
Phe	Arg	Phe	Cys	His	Gln	Leu	Asp	Phe	Ser	Thr	Ser	Gly	Ala	Leu	Cys
65					70				75					80	
Val	Ala	Leu	Asn	Lys	Ala	Ala	Ala	Gly	Ser	Ala	Tyr	Arg	Cys	Phe	Lys
			85					90						95	
Glu	Arg	Arg	Val	Thr	Lys	Ala	Tyr	Leu	Ala	Leu	Leu	Arg	Gly	His	Ile
			100					105						110	
Gln	Glu	Ser	Arg	Val	Thr	Ile	Ser	His	Ala	Ile	Gly	Arg	Asn	Ser	Thr
			115				120						125		
Glu	Gly	Arg	Ala	His	Thr	Met	Cys	Ile	Glu	Gly	Ser	Gln	Gly	Val	Ala
			130				135					140			
Gly	Cys	Glu	Asn	Pro	Lys	Pro	Ser	Leu	Thr	Asp	Leu	Val	Val	Leu	Glu
145					150					155				160	
His	Gly	Leu	Tyr	Ala	Gly	Asp	Pro	Val	Ser	Lys	Val	Leu	Leu	Lys	Pro
			165					170						175	
Leu	Thr	Gly	Arg	Thr	His	Gln	Leu	Arg	Val	His	Cys	Ser	Ala	Leu	Gly
			180					185					190		
His	Pro	Val	Val	Gly	Asp	Leu	Thr	Tyr	Gly	Glu	Val	Ser	Gly	Arg	Glu
			195				200					205			
Asp	Arg	Pro	Phe	Arg	Met	Met	Leu	His	Ala	Phe	Tyr	Leu	Arg	Ile	Pro

210		215		220
Thr Asp Thr Glu Cys Val	Glu Val Cys Thr Pro Asp Pro Phe Leu Pro			
225		230		240
Ser Leu Asp Ala Cys Trp	Ser Pro His Thr Leu Leu Gln Ser Leu Asp			
	245		250	255
Gln Leu Val Gln Ala Leu Arg	Ala Thr Pro Asp Pro Asp Pro Glu Asp			
	260		265	270
Arg Gly Pro Arg Pro Gly Ser	Pro Ser Ala Leu Leu Pro Gly Pro Gly			
	275		280	285
Arg Pro Pro Pro Pro Thr	Lys Pro Pro Glu Thr Glu Ala Gln Arg			
	290		295	300
Gly Pro Cys Leu Gln Trp	Leu Ser Glu Trp Thr Leu Glu Pro Asp Ser			
305		310		315
				320

<210> 5455

<211> 975

<212> DNA

<213> Homo sapiens

<400> 5455

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120
tgagcctaag gtaccacagt tagtctcatt tgctcttctgt cctgtgaact ccacttagaa
180
tgtcattgaa cttgggcaga cataattcta gtgtctgttc caaacgcact gtgtcacaga
240
agctagaatt accattagag gcacaaaacc ctgagaatac acaagggggc acgcttccag
300
tagatgtgtt ggggaaggag gagggcagag gggacagggg acaggattca gctttgtggt
360
gggtcctgag ggttcctacc aggggtagcc aggatctggg aaacagatca gcgactctag
420
tctgaagtgg ctgcctggtt cgggggctgc cttcagcaag attcaggcag gagagacgga
480
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540
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600
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660
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720
gtggtgaagc agcgcttgca gatgtacaac tcgcagcacc ggtcagcaat cagctgcac
780
cggaagggtg ggaggaccga ggggttgggg gccttctacc ggagctacac cacgcagctg
840
accatgaaca tccccttcca gtccatccac ttcacacct atgagttcct gcaggagcag
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975

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<210> 5456
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 5456
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 20 25 30
 Leu Tyr Gly Leu Ala Ser Phe Arg Pro Gly Val Gly Pro His Pro Thr
 35 40 45
 His Cys Pro Leu Ala Val Arg Leu Ala Cys Pro Ala Val Pro Thr Thr
 50 55 60
 Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His Arg Ser Ala
 65 70 75 80
 Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu Gly Ala Phe
 85 90 95
 Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Ile Pro Phe Gln Ser
 100 105 110
 Ile His Phe Ile Thr Tyr Glu Phe Leu Gln Glu Gln Val Asn Pro His
 115 120 125
 Arg Thr Tyr Asn Pro Gln Ser His Ile Ile Ser Gly Gly Leu Ala Gly
 130 135 140
 Ala Leu Ala Ala Ala
 145

<210> 5457
 <211> 448
 <212> DNA
 <213> Homo sapiens

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 120
 tccgtgtcca cccacatgac agcaggagcg atggccggga tccctggagca ctcgggtcatg
 180
 taccgggtgg actcggtgaa ggtaatgtgg actgtggagc tctgtgctgg tcactttcaa
 240
 ccctgaacct gatgctactt attttgcagt tctaagtgca aagtcggcct ggtggatgct
 300
 tcccattata atattaaatt tgcttcttcg tgaggtcaca cctcacatcc ccagtgtcac
 360
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 420
 aaataaataa ataaataaaa gaaaaaaa
 448

<210> 5458
 <211> 81
 <212> PRT

<213> Homo sapiens

<400> 5458

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Arg Ser Gly Ser Val Gly Ser Gln Ala Val Ala Arg Arg Met Asp Gly
 1             5             10             15
Asp Ser Arg Asp Gly Gly Gly Gly Lys Asp Ala Thr Gly Ser Glu Asp
      20             25             30
Tyr Glu Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His Met Thr Ala
      35             40             45
Gly Ala Met Ala Gly Ile Leu Glu His Ser Val Met Tyr Pro Val Asp
      50             55             60
Ser Val Lys Val Met Trp Thr Val Glu Leu Cys Ala Gly His Phe Gln
65             70             75             80
Pro

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<210> 5459

<211> 1468

<212> DNA

<213> Homo sapiens

<400> 5459

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120
cggatggagc tgcgcagcgg gagcgtgggc agccaggcgg tggcgcggag gatggatggg
180
gacagccgag atggcgggcg cggaaggac gccaccgggt cggaggacta cgagaacctg
240
ccgactagcg cctccgtgtc caccacatg acagcaggag cgatggccgg gatcctggag
300
cactcgggtc tgtaccgggt ggactcgggt aagacacgaa tgcagagttt gagtccagat
360
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420
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480
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600
ttcttcaaca cgtccctccc cagggtgttc ctccctgtga ccagccgcc tgcacttcgg
660
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720
cagcacaca cagcgcgcg cagacacatg cttttttctg tccccctcg ctttctgaag
780
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840
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900
gaaaccctga atagaacaa aacttttgaa tgctggattc aaaaaaaaaa aaaagttatc
960

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 1020
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 1080
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 1140
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 1200
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 1260
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 1320
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 1380
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 1440
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 1468

<210> 5460

<211> 155

<212> PRT

<213> Homo sapiens

<400> 5460

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Met	Asp	Gly	Asp	Ser	Arg	Asp	Gly	Gly	Gly	Lys	Asp	Ala	Thr	Gly	
		20					25					30			
Ser	Glu	Asp	Tyr	Glu	Asn	Leu	Pro	Thr	Ser	Ala	Ser	Val	Ser	Thr	His
	35					40						45			
Met	Thr	Ala	Gly	Ala	Met	Ala	Gly	Ile	Leu	Glu	His	Ser	Val	Met	Tyr
	50				55						60				
Pro	Val	Asp	Ser	Val	Lys	Thr	Arg	Met	Gln	Ser	Leu	Ser	Pro	Asp	Pro
65					70				75					80	
Lys	Ala	Gln	Tyr	Thr	Ser	Ile	Tyr	Gly	Ala	Leu	Lys	Lys	Ile	Met	Gln
			85					90						95	
Thr	Glu	Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met
		100						105					110		
Gly	Ala	Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met
	115					120						125			
Lys	Arg	Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu
	130					135					140				
Ala	Asn	Gly	Ile	Leu	Lys	Ala	Phe	Val	Trp	Ser					
145					150					155					

<210> 5461

<211> 1725

<212> DNA

<213> Homo sapiens

<400> 5461

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ccgggaggca gcaacgcaag gagccaaaat agtttctttg ccggaatgct ttaattctcc
180
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240
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300
aaggctctat ccctgaagag gatgctggga aattatataa cacctgtgct gtgtttgggc
360
ctgatggaac ttactagca aagtatagaa agatccatct gtttgacatt gatgttctg
420
gaaaaattac atttcaagaa tctaaaacat tgagtccggg tgatagtctc tccacattg
480
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720
cctattaggc tacagttgag tacctcccat ctagataata agcattcaat tagaatgaat
780
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960
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1020
gacatgcggt ttgcagagct tgcacaaatac tacgcacaga gaggctgcca gctgttggt
1080
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1200
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1260
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1320
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1560
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1620
tcttccatac ttaagttgcc tccaagcagt ttgtgaaagt atcagatcct ggtatcctgg
1680

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1725

<210> 5462

<211> 159

<212> PRT

<213> Homo sapiens

<400> 5462

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Phe	His	Leu	Cys	Ile	Phe	Cys	Leu	Glu	Thr	Ala	Tyr	Cys	Arg	Val	Gly
			20					25					30		
Leu	Gly	Ile	Cys	Tyr	Asp	Met	Arg	Phe	Ala	Glu	Leu	Ala	Gln	Ile	Tyr
		35					40					45			
Ala	Gln	Arg	Gly	Cys	Gln	Leu	Leu	Val	Tyr	Pro	Gly	Ala	Phe	Asn	Leu
	50					55					60				
Thr	Thr	Gly	Pro	Ala	His	Trp	Glu	Leu	Leu	Gln	Arg	Ser	Arg	Ala	Val
65					70					75					80
Asp	Asn	Gln	Val	Tyr	Val	Ala	Thr	Ala	Ser	Pro	Ala	Arg	Asp	Asp	Lys
				85						90				95	
Ala	Ser	Tyr	Val	Ala	Trp	Gly	His	Ser	Thr	Val	Val	Asn	Pro	Trp	Gly
			100						105				110		
Glu	Val	Leu	Ala	Lys	Ala	Gly	Thr	Glu	Glu	Ala	Ile	Val	Tyr	Ser	Asp
		115					120					125			
Ile	Asp	Leu	Lys	Lys	Leu	Ala	Glu	Ile	Arg	Gln	Gln	Ile	Pro	Val	Phe
	130					135					140				
Arg	Gln	Lys	Arg	Ser	Asp	Leu	Tyr	Ala	Val	Glu	Met	Lys	Lys	Pro	
145					150						155				

<210> 5463

<211> 792

<212> DNA

<213> Homo sapiens

<400> 5463

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120
gacaaaggcg agggacaaga gagagttaac atctagacag tggaaaaagc catggtgtgt
180
ggtttctggg aaccaccaac acttgcaggt ttagcttttt cccaggggtg actacaagaa
240
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300
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360
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420
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480
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540

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 660
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 780
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 792

<210> 5464

<211> 111

<212> PRT

<213> Homo sapiens

<400> 5464

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Leu	His	Asp	Ala	Val	Met	Asn	Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu
		20					25					30			
Gln	Met	Tyr	Asn	Ser	Gln	His	Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr
	35					-40-					45				
Val	Trp	Arg	Thr	Glu	Gly	Leu	Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr
	50				55			60							
Gln	Leu	Thr	Met	Asn	Ile	Pro	Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr
65				70				75					80		
Glu	Phe	Leu	Gln	Glu	Gln	Val	Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln
			85				90						95		
Ser	His	Ile	Ile	Ser	Gly	Gly	Leu	Ala	Gly	Ala	Leu	Ala	Ala	Ala	
			100				105						110		

<210> 5465

<211> 497

<212> DNA

<213> Homo sapiens

<400> 5465

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 aacccccggc aggagacctc ccctgacccc tctgtctgct ctctgtggg accctccagt
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<210> 5466
<211> 134
<212> PRT
<213> Homo sapiens

<400> 5466
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20 25 30
Val Arg Asp Glu Pro Pro Ala Lys Pro Val Gly Met Ser Gly Pro Ser
35 40 45
Trp Trp Asp Cys Leu Gly His Arg His Gln His Gly Val Arg Ala Ile
50 55 60
Ser Gly Asp Ile Gly Gly Ala Thr Thr Arg Trp Gly Ile Phe Asn Arg
65 70 75 80
Leu Glu Pro Leu Arg Leu Glu Arg Pro Thr Pro Gly Arg Arg Pro Pro
85 90 95
Leu Thr Pro Leu Leu Pro Leu Leu Trp Asp Pro Pro Val Asp Thr Pro
100 105 110
Asp Glu Asp Thr Gln Glu Ala Ser Ser Gln Asp Arg Arg Gln Leu Pro
115 120 125
Gly Gln Pro Arg Ser Ala
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<210> 5467
<211> 1329
<212> DNA
<213> Homo sapiens

<400> 5467
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<210> 5468

<211> 363

<212> PRT

<213> Homo sapiens

<400> 5468

Met Asp Ala Val Leu Glu Pro Phe Pro Ala Asp Arg Leu Phe Pro Gly
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 Ser Ser Phe Leu Asp Leu Gly Asp Leu Asn Glu Ser Asp Phe Leu Asn
 20 25 30
 Asn Ala His Phe Pro Glu His Leu Asp His Phe Thr Glu Asn Met Glu
 35 40 45
 Asp Phe Ser Asn Asp Leu Phe Ser Ser Phe Phe Asp Asp Pro Val Leu
 50 55 60
 Asp Glu Lys Ser Pro Leu Leu Asp Met Glu Leu Asp Ser Pro Thr Pro
 65 70 75 80
 Gly Ile Gln Ala Glu His Ser Tyr Ser Leu Ser Gly Asp Ser Ala Pro
 85 90 95
 Gln Ser Pro Leu Val Pro Ile Lys Met Glu Asp Thr Thr Gln Asp Ala
 100 105 110
 Glu His Gly Ala Trp Ala Leu Gly His Lys Leu Cys Ser Ile Met Val
 115 120 125
 Lys Gln Glu Gln Ser Pro Glu Leu Pro Val Asp Pro Leu Ala Ala Pro
 130 135 140
 Ser Ala Met Ala Ala Ala Ala Met Ala Thr Thr Pro Leu Leu Gly
 145 150 155 160
 Leu Ser Pro Leu Ser Arg Leu Pro Ile Pro His Gln Ala Pro Gly Glu

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          165          170          175
Met Thr Gln Leu Pro Val Ile Lys Ala Glu Pro Leu Glu Val Asn Gln
          180          185          190
Phe Leu Lys Val Thr Pro Glu Asp Leu Val Gln Met Pro Pro Thr Pro
          195          200          205
Pro Ser Ser His Gly Ser Asp Ser Asp Gly Ser Gln Ser Pro Arg Ser
          210          215          220
Leu Pro Pro Ser Ser Pro Val Arg Pro Met Ala Arg Ser Ser Thr Ala
225          230          235          240
Ile Ser Ser Ser Pro Leu Leu Thr Ala Pro His Lys Leu Gln Gly Thr
          245          250          255
Ser Gly Pro Leu Val Leu Thr Glu Glu Glu Lys Arg Thr Leu Ile Ala
          260          265          270
Glu Gly Tyr Pro Ile Pro Thr Lys Leu Pro Leu Thr Lys Ser Glu Glu
          275          280          285
Lys Ala Leu Lys Lys Ile Arg Arg Lys Ile Lys Asn Lys Ile Ser Ala
          290          295          300
Gln Glu Ser Arg Arg Lys Lys Lys Glu Tyr Met Asp Ser Leu Glu Lys
305          310          315          320
Lys Val Glu Ser Cys Ser Thr Glu Asn Leu Glu Leu Arg Lys Lys Val
          325          330          335
Glu Thr Leu Glu Asn Ala Asn Ser Phe Ser Ser Gly Ile Gln Pro Leu
          340          345          350
Leu Cys Ser Leu Ile Gly Leu Glu Asn Pro Thr
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<210> 5469

<211> 1292

<212> DNA

<213> Homo sapiens

<400> 5469

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acggagttta cccaggtggt gcagcatgac acggcctgta ccatcgagc cacggccagc
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420
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540
gttcagcag ctgtttccca ttcagaattc tggcatcggt atttctataa agtccatcag
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ttagagcagg agcaggcccc gagggacgcc ctgaagcagc gggcggaaca gagcatctct
660

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gaagagcccg gctgggagga ggaggaagag gagctcatgg gcatttcacc catatctcca
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 1020
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 1080
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 1260
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 1292

<210> 5470

<211> 427

<212> PRT

<213> Homo sapiens

<400> 5470

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Trp	Leu	Gln	Gln	Ser	Tyr	Gln	Ala	Val	Lys	Glu	Lys	Ser	Ser	Glu	Ala
		20						25					30		
Leu	Glu	Phe	Met	Lys	Arg	Asp	Leu	Thr	Glu	Phe	Thr	Gln	Val	Val	Gln
		35					40					45			
His	Asp	Thr	Ala	Cys	Thr	Ile	Ala	Ala	Thr	Ala	Ser	Val	Val	Lys	Glu
	50				55					60					
Lys	Leu	Ala	Thr	Glu	Gly	Ser	Ser	Gly	Ala	Thr	Glu	Lys	Met	Lys	Lys
65				70					75					80	
Gly	Leu	Ser	Asp	Phe	Leu	Gly	Val	Ile	Ser	Asp	Thr	Phe	Ala	Pro	Ser
			85					90						95	
Pro	Asp	Lys	Thr	Ile	Asp	Cys	Asp	Val	Ile	Thr	Leu	Met	Gly	Thr	Pro
		100						105					110		
Ser	Gly	Thr	Ala	Glu	Pro	Tyr	Asp	Gly	Thr	Lys	Ala	Arg	Leu	Tyr	Ser
		115					120					125			
Leu	Gln	Ser	Asp	Pro	Ala	Thr	Tyr	Cys	Asn	Glu	Pro	Asp	Gly	Pro	Pro
		130				135					140				
Glu	Leu	Phe	Asp	Ala	Trp	Leu	Ser	Gln	Phe	Cys	Leu	Glu	Glu	Lys	Lys
145				150					155					160	
Gly	Glu	Ile	Ser	Glu	Leu	Leu	Val	Gly	Ser	Pro	Ser	Ile	Arg	Ala	Leu
			165					170					175		
Tyr	Thr	Lys	Met	Val	Pro	Ala	Ala	Val	Ser	His	Ser	Glu	Phe	Trp	His
		180						185					190		
Arg	Tyr	Phe	Tyr	Lys	Val	His	Gln	Leu	Glu	Gln	Glu	Gln	Ala	Arg	Arg

195 200 205
 Asp Ala Leu Lys Gln Arg Ala Glu Gln Ser Ile Ser Glu Glu Pro Gly
 210 215 220
 Trp Glu Glu Glu Glu Glu Glu Leu Met Gly Ile Ser Pro Ile Ser Pro
 225 230 235 240
 Lys Glu Ala Lys Val Pro Val Ala Lys Ile Ser Thr Phe Pro Glu Gly
 245 250 255
 Glu Pro Gly Pro Gln Ser Pro Cys Glu Glu Asn Leu Val Thr Ser Val
 260 265 270
 Glu Pro Pro Ala Glu Val Thr Pro Ser Glu Ser Ser Glu Ser Ile Ser
 275 280 285
 Leu Val Thr Gln Ile Ala Asn Pro Ala Thr Ala Pro Glu Ala Arg Val
 290 295 300
 Leu Pro Lys Asp Leu Ser Gln Lys Leu Leu Glu Ala Ser Leu Glu Glu
 305 310 315 320
 Gln Gly Leu Ala Val Asp Val Gly Glu Thr Gly Pro Ser Pro Pro Ile
 325 330 335
 His Ser Lys Pro Leu Thr Pro Ala Gly His Thr Gly Gly Pro Glu Pro
 340 345 350
 Arg Pro Pro Ala Arg Val Glu Thr Leu Arg Glu Glu Ala Pro Thr Asp
 355 360 365
 Leu Arg Val Phe Glu Leu Asn Ser Asp Ser Gly Lys Ser Thr Pro Ser
 370 375 380
 Asn Asn Gly Lys Lys Gly Ser Ser Thr Asp Ile Ser Glu Asp Trp Glu
 385 390 395 400
 Lys Asp Phe Asp Leu Asp Met Thr Glu Glu Val Gln Met Ala Leu
 405 410 415
 Ser Lys Val Asp Ala Ser Gly Glu Leu Lys Met
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<210> 5471

<211> 534

<212> DNA

<213> Homo sapiens

<400> 5471

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120

ttgccagggtg tggcgccat gtgtgccgt gggcagagta cagagacaca agcttggtg

180

gacacgaatg tgtagctatg tgcgagtga cacggagtgg tgagtgcagg gacccagggc

240

cggcctgcgt cggcgcgag ggcataatagg ggcgtgcacg cagtcttgga ggtgtgtgca

300

cagagcccc ggcacccgag tgtgtgcaaa gacacaggaa cccgtctgag tggcgctgtg

360

tgtgcaacc aaggagggtg gcgcttgag tccaaagtgt gcgcttatcc ggatgtggat

420

gtgggggag ccgggggag ggctgggtgt gcgtgactcg ggtgtgccgg gaccacaga

480

gcataatgtg ccatgcctgg tgctgtgact catgtccctg ggggtggcac gcgt

534

<210> 5472
 <211> 161
 <212> PRT
 <213> Homo sapiens

<400> 5472
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 Pro Arg Leu Pro Pro His Pro His Pro Asp Lys Arg Thr Leu Trp Ser
 20 25 30
 Pro Ser Ala His Leu Leu Gly Leu His Thr Gln Arg His Ala Asp Gly
 35 40 45
 Phe Leu Cys Leu Cys Thr His Ala Gly Ala Gly Gly Ser Val His Thr
 50 55 60
 Pro Pro Arg Leu Arg Ala Arg Pro Tyr Met Pro Cys Ala Pro Thr Gln
 65 70 75 80
 Ala Gly Leu Gly Ser Leu His Ser Pro Leu Arg Val His Ser His Ile
 85 90 95
 Ala Thr His Ser Cys Pro His Lys Leu Val Ser Leu Tyr Ser Ala His
 100 105 110
 Gly His Thr Cys Ala Pro His Leu Ala Thr Arg Thr Pro Gly Leu Cys
 115 120 125
 Ile Pro His Pro Gly Ser Gly Pro Arg Val Val Gly Pro Ala Gly Ser
 130 135 140
 Ala Ala Ala Ser Ala Arg Thr Val Leu Phe Leu Arg Pro Arg Gly Ala
 145 150 155 160
 Ala

<210> 5473
 <211> 691
 <212> DNA
 <213> Homo sapiens

<400> 5473
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 cgctgccgcg ccccgcgccc ccaggaggcc gcaccctgcg ccagggcccg gagacagcaa
 120
 catcttcttg ggctgcagg agacctgaca gatgccaaa caaaggaaca gttgggatcc
 180
 aggcagcatg aggtagaatg gcaaacctac cagggtattc tgaagaagac aagagtcatt
 240
 gaaaaaacca agtggctgga tatcaaagga aatcatgaaa aagatggagg agctcttatt
 300
 actggccaag gaaagcagtc ggagcaacca tacaatttgg tttggacact ttacaacatc
 360
 cactattctt tctccatcac caggaatccg gtcaataatg agttcggcta tagcttattt
 420
 gtgtggacat ctccatacac ttggtggact gatgcctgtt ttgcacactc gtcacttcca
 480
 gggcactttg gaacttgagg tgggagactg gaaggataat aggaggtacc ggatttttgc
 540

ttttgatcac gacctcttta gctttgcaga ttgatcttt gggaagtggc ctgtggttct
 600
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 660
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 691

<210> 5474

<211> 139

<212> PRT

<213> Homo sapiens

<400> 5474

Met	Lys	Lys	Met	Glu	Glu	Leu	Leu	Leu	Leu	Ala	Lys	Glu	Ser	Ser	Arg
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Ser	Asn	His	Thr	Ile	Trp	Phe	Gly	His	Phe	Thr	Thr	Ser	Thr	Ile	Leu
			20				25						30		
Ser	Pro	Ser	Pro	Gly	Ile	Arg	Ser	Ile	Met	Ser	Ser	Ala	Ile	Ala	Tyr
		35				40						45			
Leu	Cys	Gly	His	Leu	His	Thr	Leu	Gly	Gly	Leu	Met	Pro	Val	Leu	His
	50				55					60					
Thr	Arg	His	Phe	Gln	Gly	Thr	Leu	Glu	Leu	Glu	Val	Gly	Asp	Trp	Lys
65				70				75						80	
Asp	Asn	Arg	Arg	Tyr	Arg	Ile	Phe	Ala	Phe	Asp	His	Asp	Leu	Phe	Ser
			85					90					95		
Phe	Ala	Asp	Leu	Ile	Phe	Gly	Lys	Trp	Pro	Val	Val	Leu	Ile	Thr	Asn
			100				105					110			
Pro	Lys	Ser	Leu	Leu	Tyr	Ser	Cys	Gly	Glu	His	Glu	Pro	Leu	Glu	Arg
		115				120						125			
Leu	Leu	His	Ser	Thr	His	Ile	Arg	Leu	Val	Thr					
	130					135									

<210> 5475

<211> 628

<212> DNA

<213> Homo sapiens

<400> 5475

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 120
 aacaaccccc acgccagcta cagcgccctt ccgccagtga gctcctccga cagcgaggcc
 180
 cccgaggcca accccgccga cggcagtgcg gctgacgagg acgatgagga cgggggggtc
 240
 atggccgtca cagcggtaac cgccacagct gccagcgaca ggatggagag cgactcagac
 300
 tcagacaaga gtagcgacaa cagtggcctg aagaggaaga cgctgcgct aaagatgtcg
 360
 gtctcgaaac gagcccgaaa ggcctccagc gacctggatc aggccagcgt gtcccatcc
 420
 gaagaggaga actcggaaaag ctcatctgag tcggagaaga ccagcgacca ggacttcaca
 480

cctgagaaga aagcagcggg cggggcgcca cggagggggc ctctgggggg acggaaaaaa
 540
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 gagccggtgg ccatggcgcg gtcggcgt
 628

<210> 5476
 <211> 209
 <212> PRT
 <213> Homo sapiens

<400> 5476
 Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro Tyr
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 Asp Lys Cys Lys Asp Lys Tyr Gly Lys Pro Asn Lys Arg Lys Gly Phe
 20 25 30
 Asn Glu Gly Leu Trp Glu Ile Gln Asn Asn Pro His Ala Ser Tyr Ser
 35 40 45
 Ala Pro Pro Pro Val Ser Ser Ser Asp Ser Glu Ala Pro Glu Ala Asn
 50 55 60
 Pro Ala Asp Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val
 65 70 75 80
 Met Ala Val Thr Ala Val Thr Ala Thr Ala Ala Ser Asp Arg Met Glu
 85 90 95
 Ser Asp Ser Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg
 100 105 110
 Lys Thr Pro Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala
 115 120 125
 Ser Ser Asp Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Glu Asn
 130 135 140
 Ser Glu Ser Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr
 145 150 155 160
 Pro Glu Lys Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly
 165 170 175
 Gly Arg Lys Lys Lys Lys Ala Pro Ser Ala Ser Asp Ser Asp Ser Lys
 180 185 190
 Ala Asp Ser Asp Gly Ala Lys Pro Glu Pro Val Ala Met Ala Arg Ser
 195 200 205
 Ala

<210> 5477
 <211> 727
 <212> DNA
 <213> Homo sapiens

<400> 5477
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 120
 gggcccttct cactgagctc gtgaagtgcc tcagtcaagg caaggtcccc tgggtccatat
 180

gggccccccc gcccatgggg ttgggctggt ccttatagtg cctacgttag tctgtgtgga
 240
 gcccttgccc agcgggggag aaaaagggtg cttctgggtcc gtctgtataa aacatggccc
 300
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 360
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 420
 gactcatcgt cgctcagccc atagggaagc ccaggcctgg ccccagaga gtctccttcc
 480
 gagtctctct cgaagcccat gagctgggtc ctgttgccgt cgccttctc ctcttctct
 540
 tcctctctcaa actccagatc ctggcctagt agcaaatac tctccaatac caggggccccg
 600
 ggtccttcgt cgagggagtc ttcagtatcc actttgaccc cctcgcatth caggggctgc
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 720
 gcggccg
 727

<210> 5478

<211> 99

<212> PRT

<213> Homo sapiens

<400> 5478

Ser	Ala	Ser	Val	Lys	Ala	Arg	Ser	Pro	Gly	Pro	Tyr	Gly	Pro	Pro	Arg
1				5				10					15		
Pro	Trp	Gly	Trp	Ala	Gly	Pro	Tyr	Ser	Ala	Tyr	Val	Ser	Leu	Cys	Gly
			20					25					30		
Ala	Pro	Gly	Gln	Arg	Gly	Arg	Lys	Arg	Trp	Leu	Leu	Val	Arg	Leu	Tyr
			35				40						45		
Lys	Thr	Trp	Pro	Leu	Thr	Cys	Arg	Pro	Pro	Thr	Gln	Leu	Ala	Gly	Trp
			50				55				60				
Ala	Gly	Leu	Ser	Pro	Leu	Ala	Ser	Pro	Gly	Pro	Leu	Ala	Gly	Ser	Ser
65					70				75					80	
Thr	Ser	Leu	Ser	Ala	Leu	Ser	Ala	Arg	Pro	Pro	Pro	Asp	Ser	Ser	Ser
				85				90						95	
Leu	Ser	Pro													

<210> 5479

<211> 1386

<212> DNA

<213> Homo sapiens

<400> 5479

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 120
 atgcgagagg agcagctggc acgggaggcc gaggcccggg cggagcggga ggcggaggcc
 180

cggaggcggg aggagcagga ggcacgagag aaggcgcagg ccgagcagga ggagcaggag
 240
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 300
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 660
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 720
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 780
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 1260
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 1386

<210> 5480

<211> 251

<212> PRT

<213> Homo sapiens

<400> 5480

Ala	Gly	Thr	Thr	Asp	Arg	Glu	Glu	Ala	Thr	Arg	Leu	Leu	Ala	Glu	Lys
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Arg	Arg	Gln	Ala	Arg	Glu	Gln	Arg	Glu	Arg	Glu	Glu	Gln	Glu	Arg	Arg
		20					25					30			
Leu	Gln	Ala	Glu	Arg	Asp	Lys	Arg	Met	Arg	Glu	Glu	Gln	Leu	Ala	Arg

35 40 45
 Glu Ala Glu Ala Arg Ala Glu Arg Glu Ala Glu Ala Arg Arg Arg Glu
 50 55 60
 Glu Gln Glu Ala Arg Glu Lys Ala Gln Ala Glu Gln Glu Glu Gln Glu
 65 70 75 80
 Arg Leu Gln Lys Gln Lys Glu Glu Ala Glu Ala Arg Ser Arg Glu Glu
 85 90 95
 Ala Glu Arg Gln Arg Leu Glu Arg Glu Lys His Phe Gln Gln Gln Glu
 100 105 110
 Gln Glu Arg Gln Glu Arg Arg Lys Arg Leu Glu Glu Ile Met Lys Arg
 115 120 125
 Thr Arg Lys Ser Glu Val Ser Glu Thr Lys Gln Lys Gln Asp Ser Lys
 130 135 140
 Glu Ala Asn Ala Asn Gly Ser Ser Pro Glu Pro Val Lys Ala Val Glu
 145 150 155 160
 Ala Arg Ser Pro Gly Leu Gln Lys Glu Ala Val Gln Lys Glu Glu Pro
 165 170 175
 Ile Pro Gln Glu Pro Gln Trp Ser Leu Pro Ser Lys Glu Leu Pro Ala
 180 185 190
 Ser Leu Val Asn Gly Leu Gln Pro Leu Pro Ala His Gln Glu Asn Gly
 195 200 205
 Phe Ser Thr Asn Gly Pro Ser Gly Asp Lys Ser Leu Ser Arg Thr Pro
 210 215 220
 Glu Thr Leu Leu Pro Phe Ala Glu Ala Glu Ala Phe Leu Lys Lys Ala
 225 230 235 240
 Val Val Gln Ser Pro Gln Val Thr Glu Val Leu
 245 250

<210> 5481
 <211> 1513
 <212> DNA
 <213> Homo sapiens

<400> 5481
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 ccggcagcca atcaggagag cgctcgctcc tgactcgacc ggcccacgct tcccgccagt
 180
 cccctaaccg tgaggctgcc gcgcggcggt cactgcgccg gggtagtggg cccagtggt
 240
 gcgctctctg gccgttcctt acactttgct tcaggctcca gtgcaggggc gtagtgggat
 300
 atggccaact cgggctgcaa ggacgtcacg ggtccagatg aggagagttt tctgtacttt
 360
 gcctacggca gcaacctgct gacagagagg atccacctcc gaaaccctc ggcggcgttc
 420
 ttctgtgtgg ccgcctgca ggattttaag cttgactttg gcaattccca aggcaaaaca
 480
 agtcaaaactt ggcattggagg gatagccacc atttttcaga gtcctggcga tgaattgtgg
 540
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 600

aaaagtggaa tgtatgttgt aatagaagtt aaagttgcaa ctcaagaagg aaaagaaata
 660
 acctgtcgaa gttatctgat gacaaattac gaaagtgctc ccccatcccc acagtataaa
 720
 aagattatatt gcatgggtgc aaaagaaaat ggtttgccgc tggagtatca agagaagtta
 780
 aaagcaatag aaccaaata ga ctatacagga aaggtctcag aagaaattga agacatcatc
 840
 aaaaaggggg aaacacaaac tctttagaac ataacagaat atatctaagg gtattctatg
 900
 tgctaataata aaatatatttt aacacttgag aacagggatc tgggggatct ccacgtttga
 960
 tccattttca gcagtgtctt gaaggagtat cttacttggg tgattccttg tttttagact
 1020
 ataaaaagaa actgggatag gagttagaca atttaaaagg ggtgtatgag ggcctgaaat
 1080
 atgtgacaaa tgaatgtgag tacccttct gtgaacactg aaagctattc tcttgaattg
 1140
 atcttaagtg tctccttgct ctggtaaaag atagatttgt agctcacttg atgatgggtg
 1200
 tgggtgaattg ctctgctctg tctgagattt ttaaaaatca gcttaatgag agtaatctgc
 1260
 agacaattga taataacatt ttgaaaattg gaaagatggg atactgtttt tagaggaata
 1320
 aacgtatttg tggtttaaaa aaaaaagagc aacttccttt gcactgtata cccttttgta
 1380
 ttattaggat ttatactat gtttatatgt tgcctattta ataaatcgct taaagttata
 1440
 tatcttgaat atctttccat aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1500
 aaaaaaaaaa aaa
 1513

<210> 5482

<211> 188

<212> PRT

<213> Homo sapiens

<400> 5482

Met	Ala	Asn	Ser	Gly	Cys	Lys	Asp	Val	Thr	Gly	Pro	Asp	Glu	Glu	Ser
1				5				10					15		
Phe	Leu	Tyr	Phe	Ala	Tyr	Gly	Ser	Asn	Leu	Leu	Thr	Glu	Arg	Ile	His
			20				25					30			
Leu	Arg	Asn	Pro	Ser	Ala	Ala	Phe	Cys	Val	Ala	Arg	Leu	Gln	Asp	
		35				40				45					
Phe	Lys	Leu	Asp	Phe	Gly	Asn	Ser	Gln	Gly	Lys	Thr	Ser	Gln	Thr	Trp
	50				55			60							
His	Gly	Gly	Ile	Ala	Thr	Ile	Phe	Gln	Ser	Pro	Gly	Asp	Glu	Leu	Trp
65			70				75						80		
Gly	Val	Val	Trp	Lys	Met	Asn	Lys	Ser	Asn	Leu	Asn	Ser	Leu	Asp	Glu
			85				90						95		
Gln	Glu	Gly	Val	Lys	Ser	Gly	Met	Tyr	Val	Val	Ile	Glu	Val	Lys	Val
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1140

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<210> 5484

<211> 357

<212> PRT

<213> Homo sapiens . . .

<400> 5484

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		20					25						30		
Ile	Asp	Ile	Ile	Asn	Leu	Asp	Thr	Phe	Thr	Tyr	Ile	Glu	Ser	Ala	Ser
	35					40						45			
Glu	Leu	Arg	Gly	Gly	Phe	Asp	Trp	Ser	Leu	His	Phe	Gln	Trp	Glu	Gln
	50				55						60				
Leu	Ser	Pro	Glu	Gln	Lys	Ala	Arg	Arg	Leu	Asp	Pro	Thr	Glu	Pro	Ile
65				70					75					80	
Arg	Thr	Pro	Ile	Ile	Ala	Gly	Gly	Leu	Phe	Val	Ile	Asp	Lys	Ala	Trp
			85					90					95		
Phe	Asp	Tyr	Leu	Gly	Lys	Tyr	Asp	Met	Asp	Met	Asp	Ile	Trp	Gly	Gly
	100						105					110			
Glu	Asn	Phe	Glu	Ile	Ser	Phe	Arg	Val	Trp	Met	Cys	Gly	Gly	Ser	Leu
	115					120					125				
Glu	Ile	Val	Pro	Cys	Ser	Arg	Val	Gly	His	Val	Phe	Arg	Lys	Lys	His
	130					135				140					
Pro	Tyr	Val	Phe	Pro	Asp	Gly	Asn	Ala	Asn	Thr	Tyr	Ile	Lys	Asn	Thr
145				150					155					160	
Lys	Arg	Thr	Ala	Glu	Val	Trp	Met	Asp	Glu	Tyr	Lys	Gln	Tyr	Tyr	Tyr
		165					170					175			
Ala	Ala	Arg	Pro	Phe	Ala	Leu	Glu	Arg	Pro	Phe	Gly	Asn	Val	Glu	Ser
	180						185					190			
Arg	Leu	Asp	Leu	Arg	Lys	Asn	Leu	Arg	Cys	Gln	Ser	Phe	Lys	Trp	Tyr
	195					200					205				
Leu	Glu	Asn	Ile	Tyr	Pro	Glu	Leu	Ser	Ile	Pro	Lys	Glu	Phe	Ser	Ile
	210				215					220					
Gln	Lys	Gly	Asn	Ile	Arg	Gln	Arg	Gln	Lys	Cys	Leu	Glu	Ser	Gln	Arg
225			230						235					240	
Gln	Asn	Asn	Gln	Glu	Thr	Pro	Asn	Leu	Lys	Leu	Ser	Pro	Cys	Ala	Lys
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<211> 1549
<212> DNA
<213> Homo sapiens
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<210> 5486

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5486

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Asp	Ser	Pro	Ser	Thr	Ser	Arg	Ser	Gly	Gly	Ser	Ser	Arg	Leu	Ser	Ser
			20					25					30		
Arg	Ser	Arg	Ser	Arg	Ser	Phe	Ser	Arg	Ser	Ser	Arg	Ser	His	Ser	Arg
		35				40					45				
Val	Ser	Ser	Arg	Phe	Ser	Ser	Arg	Ser	Arg	Arg	Ser	Lys	Ser	Arg	Ser
	50				55						60				
Arg	Ser	Arg	Arg	Arg	His	Gln	Arg	Lys	Tyr	Arg	Arg	Tyr	Ser	Arg	Ser
65					70				75					80	
Tyr	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Arg	Tyr	Arg	Glu	Arg
			85					90						95	
Arg	Tyr	Gly	Phe	Thr	Arg	Arg	Tyr	Tyr	Arg	Ser	Pro	Ser	Arg	Tyr	Arg
			100					105					110		
Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Ser	Tyr	Cys	Gly
		115				120						125			
Arg	Ala	Tyr	Ala	Ile	Ala	Arg	Gly	Gln	Arg	Tyr	Tyr	Gly	Phe	Gly	Arg
	130				135						140				
Thr	Val	Tyr	Pro	Glu	Glu	His	Ser	Arg	Trp	Arg	Asp	Arg	Ser	Arg	Thr
145					150				155					160	
Arg	Ser	Arg	Ser	Arg	Thr	Pro	Phe	Arg	Leu	Ser	Glu	Lys	Asp	Arg	Met
			165					170					175		
Glu	Leu	Leu	Glu	Ile	Ala	Lys	Thr	Asn	Ala	Ala	Lys	Ala	Leu	Gly	Thr
		180					185						190		
Thr	Asn	Ile	Asp	Leu	Pro	Ala	Ser	Leu	Arg	Thr	Val	Pro	Ser	Ala	Lys
	195					200						205			
Glu	Thr	Ser	Arg	Gly	Ile	Gly	Val	Ser	Ser	Asn	Gly	Ala	Lys	Pro	Glu
	210				215						220				
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<211> 1716
<212> DNA
<213> Homo sapiens
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<211> 272

<212> PRT

<213> Homo sapiens

<400> 5488

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Gln	Tyr	Thr	Ser	Ile	Tyr	Gly	Ala	Leu	Lys	Lys	Ile	Met	Arg	Thr	Glu
			20					25					30		
Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met	Gly	Ala
		35					40					45			
Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met	Lys	Arg
		50				55					60				
Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu	Ala	Asn
65					70					75				80	
Gly	Ile	Ala	Gly	Ser	Met	Ala	Thr	Leu	Leu	His	Asp	Ala	Val	Met	Asn
				85					90					95	
Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu	Gln	Met	Tyr	Asn	Ser	Gln	His
			100					105					110		
Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr	Val	Trp	Arg	Thr	Glu	Gly	Leu
		115					120					125			
Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr	Gln	Leu	Thr	Met	Asn	Ile	Pro
		130				135					140				
Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr	Glu	Phe	Leu	Gln	Glu	Gln	Val
145					150					155				160	
Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln	Ser	His	Ile	Ile	Ser	Gly	Gly
				165					170					175	
Leu	Ala	Gly	Ala	Leu	Ala	Ala	Ala	Ala	Thr	Thr	Pro	Leu	Asp	Val	Cys
			180					185					190		
Lys	Thr	Leu	Leu	Asn	Thr	Gln	Glu	Asn	Val	Ala	Leu	Ser	Leu	Ala	Asn
		195				200						205			
Ile	Ser	Gly	Arg	Leu	Ser	Gly	Met	Ala	Asn	Ala	Phe	Arg	Thr	Val	Tyr

210		215		220	
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225		230		235	240
Ile Tyr Gln Met Pro Ser Thr Ala Ile Ser Trp Ser Val Tyr Glu Phe					
	245		250		255
Phe Lys Tyr Phe Leu Thr Lys Arg Gln Leu Glu Asn Arg Ala Pro Tyr					
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<210> 5489

<211> 1600

<212> DNA

<213> Homo sapiens

<400> 5489

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<210> 5490

<211> 357

<212> PRT

<213> Homo sapiens

<400> 5490

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			20					25					30		
Leu	Glu	Lys	Ile	Leu	Gln	Arg	Gln	Phe	Ser	Ser	Ser	Asn	Ser	Pro	Arg
		35					40					45			
Gly	Ile	Ile	Phe	Thr	Arg	Thr	Arg	Gln	Ser	Ala	His	Ser	Leu	Leu	Leu
	50				55						60				
Trp	Leu	Gln	Gln	Gln	Gln	Gly	Leu	Gln	Thr	Val	Asp	Ile	Arg	Ala	Gln
65				70					75						80
Leu	Leu	Ile	Gly	Ala	Gly	Asn	Ser	Ser	Gln	Ser	Thr	His	Met	Thr	Gln
			85						90				95		
Arg	Asp	Gln	Gln	Glu	Val	Ile	Gln	Lys	Phe	Gln	Asp	Gly	Thr	Leu	Asn
			100					105					110		
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		115					120					125			
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145				150						155					160
Val	Ala	Thr	Glu	Gly	Ser	Arg	Glu	Leu	Lys	Arg	Glu	Leu	Ile	Asn	Glu
			165						170					175	
Ala	Leu	Glu	Thr	Leu	Met	Glu	Gln	Ala	Val	Ala	Ala	Val	Gln	Lys	Met
		180						185					190		
Asp	Gln	Ala	Glu	Tyr	Gln	Ala	Lys	Ile	Arg	Asp	Leu	Gln	Gln	Ala	Ala
		195					200					205			
Leu	Thr	Lys	Arg	Ala	Ala	Gln	Ala	Ala	Gln	Arg	Glu	Asn	Gln	Arg	Gln
	210				215						220				
Gln	Phe	Pro	Val	Glu	His	Val	Gln	Leu	Leu	Cys	Ile	Asn	Cys	Met	Val
225				230						235					240
Ala	Val	Gly	His	Gly	Ser	Asp	Leu	Arg	Lys	Val	Glu	Gly	Thr	His	His
			245						250					255	
Val	Asn	Val	Asn	Pro	Asn	Phe	Ser	Asn	Tyr	Tyr	Asn	Val	Ser	Arg	Asp

	260		265		270										
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	275						280					285			
Ile	Ser	Cys	Arg	Asn	Cys	Gly	Glu	Val	Trp	Gly	Leu	Gln	Met	Ile	Tyr
	290					295					300				
Lys	Ser	Val	Lys	Leu	Pro	Val	Leu	Lys	Val	Arg	Ser	Met	Leu	Leu	Glu
305					310					315					320
Thr	Pro	Gln	Gly	Arg	Ile	Gln	Ala	Lys	Lys	Trp	Ser	Arg	Val	Pro	Phe
			325						330				335		
Ser	Val	Pro	Asp	Phe	Asp	Phe	Leu	Gln	His	Cys	Ala	Glu	Asn	Leu	Ser
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Asp	Leu	Ser	Leu	Asp											
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<210> 5491

<211> 5555

<212> DNA

<213> Homo sapiens

<400> 5491

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<212> PRT

<213> Homo sapiens

<400> 5494

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Ile	Ala	Tyr	Gly	Asp	Lys	Arg	Tyr	Asn	Cys	Glu	Tyr	Ser	Gly	Pro
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Lys	Pro	Leu	Pro	Lys	Asp	Gly	Tyr	Asp	Leu	Val	Gln	Glu	Leu	Cys
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Gly	Phe	Phe	Phe	Gly	Asn	Val	Ser	Leu	Cys	Cys	Asp	Val	Arg	Gln
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Gln	Thr	Leu	Lys	Asp	Asn	Leu	Gln	Leu	Pro	Leu	Gln	Phe	Leu	Ser
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Cys	Pro	Ser	Cys	Phe	Tyr	Asn	Leu	Leu	Asn	Leu	Phe	Cys	Glu	Leu
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Cys	Ser	Pro	Arg	Gln	Ser	Gln	Phe	Leu	Asn	Val	Thr	Ala	Thr	Glu
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Tyr	Val	Asp	Pro	Val	Thr	Asn	Gln	Thr	Lys	Thr	Asn	Val	Lys	Glu
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Phe Ser Asp Phe Pro Val His Gly Met Glu Pro Met Asn Asn Ala Thr
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Lys Gly Cys Asp Glu Ser Val Asp Glu Val Thr Ala Pro Cys Ser Cys
225          230          235          240
Gln Asp Cys Ser Ile Val Cys Gly Pro Lys Pro Gln Pro Pro Pro Pro
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Pro Ala Pro Trp Thr Ile Leu Gly Leu Asp Ala Met Tyr Val Ile Met
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Lys His Ile Tyr Gln Pro Tyr Pro Ser Gly Ala Asp Val Pro Phe Gly
          420          425          430
Pro Pro Leu Asp Ile Gln Ile Leu His Gln Val Leu Asp Leu Gln Ile
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Ala Ile Glu Asn Ile Thr Ala Ser Tyr Asp Asn Glu Thr Val Thr Leu
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His Lys Lys Gly Asp Asp Phe Phe Val Tyr Ala Asp Tyr His Thr His
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<212> DNA

<213> Homo sapiens

<400> 5495

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<212> PRT

<213> Homo sapiens

<400> 5496

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Thr	Thr	Phe	Ser	Thr	Thr	Ser	Gly	Tyr	Met	Glu	Gly	Tyr	Tyr	Thr	Phe
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	290		295		300										
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<212> DNA

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<400> 5498
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 Arg Ser Gln Val Lys Gly Leu Pro Leu His Ser Arg Glu Gln Arg Asp
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 1080
 gtcattggtg tgnctgtgtg tggcatgcag gtgtaccaag caggcagtgg gcagctcatg
 1140
 ttcatgaaca agtaccatgg acggaagcta tcggtgcagg gcttcaagga ggcacttttc
 1200
 cagttcttcc acaatgggcg gtacctgcgc cgtgaactcc tgggccctgt gctcaagaag
 1260
 ctgactgagc tcaaggcagt gttggagcga caggagtcct accgcttcta ctcaagctcc
 1320
 ctgctgggtca tttatgatgg caaggagcgg cccgaagtgg tcctggactc agatgctgag
 1380
 gatttggagg acctgtcaga ggaatcagct gatgagtctg ctgggtgccta tgcctacaaa
 1440
 cccatcggcg ccagctctgt agatgtgcgc atgatcgact ttgcacacac cacctgcagg
 1500
 ctgtatggcg aggacaccgt ggtgcatgag ggccaggatg ctggctatat cttcgggctc
 1560
 cagagcctga tagacattgt cacagagata agtgaggaga gtggggagtg agcttgctag
 1620
 ctgctccagt acttgagagc gactctgtgt cccaggcaca gctgtgctgc gtcagggagg
 1680
 aagccagtat ggccagggtg tggctcctgc agcctggagc tgatgtgcag tggcctctgt
 1740
 gagccccagc ctgagccagt cccagctgtg cttggagtct ttatttattt taactatttc
 1800
 ttcaacattc cacatttgat gatgatacct ctttcttccc tgagtgtata tgttctaata
 1860
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 1918

<210> 5500

<211> 426

<212> PRT

<213> Homo sapiens

<400> 5500

Met Ser Pro Ala Phe Arg Ala Met Asp Val Glu Pro Arg Ala Lys Gly
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35							40			45						
His	Gln	Phe	Tyr	Glu	Thr	Leu	Pro	Ala	Glu	Met	Arg	Lys	Phe	Thr	Pro	
50							55			60						
Gln	Tyr	Lys	Gly	Val	Val	Ser	Val	Arg	Phe	Glu	Glu	Asp	Glu	Asp	Arg	
65						70			75					80		
Asn	Leu	Cys	Leu	Ile	Ala	Tyr	Pro	Leu	Lys	Gly	Asp	His	Gly	Ile	Val	
			85				90					95				
Asp	Ile	Ala	His	Asn	Ser	Asp	Cys	Glu	Pro	Lys	Ser	Lys	Leu	Leu	Arg	
			100				105					110				
Trp	Thr	Thr	Asn	Lys	Lys	His	His	Val	Leu	Glu	Thr	Glu	Lys	Thr	Pro	
115							120			125						
Lys	Asp	Trp	Val	Arg	Gln	His	Arg	Lys	Glu	Glu	Lys	Met	Lys	Ser	His	
130							135			140						
Lys	Leu	Glu	Glu	Glu	Phe	Glu	Trp	Leu	Lys	Lys	Ser	Glu	Val	Leu	Tyr	
145						150			155					160		
Tyr	Thr	Val	Glu	Lys	Gly	Asn	Ile	Ser	Ser	Gln	Leu	Lys	His	Tyr		
			165				170					175				
Asn	Pro	Trp	Ser	Met	Lys	Cys	His	Gln	Gln	Gln	Leu	Gln	Arg	Met	Lys	
			180				185					190				
Glu	Asn	Ala	Lys	His	Arg	Asn	Gln	Tyr	Lys	Phe	Ile	Leu	Leu	Glu	Asn	
195							200			205						
Leu	Thr	Ser	Arg	Tyr	Glu	Val	Pro	Cys	Val	Leu	Asp	Leu	Lys	Met	Gly	
210							215			220						
Thr	Arg	Gln	His	Gly	Asp	Asp	Ala	Ser	Glu	Glu	Lys	Ala	Ala	Asn	Gln	
225						230			235					240		
Ile	Arg	Lys	Cys	Gln	Gln	Ser	Thr	Ser	Ala	Val	Ile	Gly	Val	Xaa	Val	
			245				250					255				
Cys	Gly	Met	Gln	Val	Tyr	Gln	Ala	Gly	Ser	Gly	Gln	Leu	Met	Phe	Met	
			260				265					270				
Asn	Lys	Tyr	His	Gly	Arg	Lys	Leu	Ser	Val	Gln	Gly	Phe	Lys	Glu	Ala	
275							280			285						
Leu	Phe	Gln	Phe	Phe	His	Asn	Gly	Arg	Tyr	Leu	Arg	Arg	Glu	Leu	Leu	
290							295			300						
Gly	Pro	Val	Leu	Lys	Lys	Leu	Thr	Glu	Leu	Lys	Ala	Val	Leu	Glu	Arg	
305						310			315					320		
Gln	Glu	Ser	Tyr	Arg	Phe	Tyr	Ser	Ser	Ser	Leu	Leu	Val	Ile	Tyr	Asp	
			325				330					335				
Gly	Lys	Glu	Arg	Pro	Glu	Val	Val	Leu	Asp	Ser	Asp	Ala	Glu	Asp	Leu	
			340				345					350				
Glu	Asp	Leu	Ser	Glu	Glu	Ser	Ala	Asp	Glu	Ser	Ala	Gly	Ala	Tyr	Ala	
355							360			365						
Tyr	Lys	Pro	Ile	Gly	Ala	Ser	Ser	Val	Asp	Val	Arg	Met	Ile	Asp	Phe	
370							375			380						
Ala	His	Thr	Thr	Cys	Arg	Leu	Tyr	Gly	Glu	Asp	Thr	Val	Val	His	Glu	
385						390			395					400		
Gly	Gln	Asp	Ala	Gly	Tyr	Ile	Phe	Gly	Leu	Gln	Ser	Leu	Ile	Asp	Ile	
			405				410					415				
Val	Thr	Glu	Ile	Ser	Glu	Glu	Ser	Gly	Glu							
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<210> 5501

<211> 568

<212> DNA

<213> Homo sapiens

<400> 5501

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 120
 tgaagcgggg acaaaaccat gcagctcaga ggtccctgtg ggggctgggg gagctgccct
 180
 gcaggtcttg gcacatgcac agcaggctcc ccatagcttt gtcaccacaa agggcactgt
 240
 tctattcaca gcacctcctg cttctgcctg gcaactgtgt ctccctgtgc tatatttaat
 300
 tccaccagca aagctggcga ggcaggggcc agccctgaag gagatctcct tgctgaccc
 360
 ctggacctgg aaatggaggc ttcattgtgc cgccttggcg gcttaagcct gctgctttgg
 420
 cagtgccatg ggtgagccga gcagctgtga ggtgggtggg gcagggtgtg agccacgccc
 480
 ggggtctatt ccaggctcta ggggctggtg ctcatcccca cccccagcga cttccgtcct
 540
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 568

<210> 5502

<211> 110

<212> PRT

<213> Homo sapiens

<400> 5502

Met	Ile	Leu	Gly	Lys	Arg	Leu	His	Leu	Asn	Phe	Arg	Tyr	Phe	Thr	Cys
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Glu	Ala	Gly	Thr	Lys	Pro	Cys	Ser	Ser	Glu	Val	Pro	Val	Gly	Ala	Gly
			20					25					30		
Gly	Ala	Ala	Leu	Gln	Val	Leu	Ala	His	Ala	Gln	Gln	Ala	Pro	His	Ser
		35				40					45				
Phe	Val	Thr	Thr	Lys	Gly	Thr	Val	Leu	Phe	Thr	Ala	Pro	Pro	Ala	Ser
	50				55				60						
Ala	Trp	Gln	Leu	Cys	Leu	Pro	Val	Leu	Tyr	Leu	Ile	Pro	Pro	Ala	Lys
65				70				75						80	
Leu	Ala	Arg	Gln	Gly	Pro	Ala	Leu	Lys	Glu	Ile	Ser	Leu	Pro	Asp	Pro
			85					90					95		
Trp	Thr	Trp	Lys	Trp	Arg	Leu	His	Val	Pro	Ala	Leu	Ala	Ala		
			100					105					110		

<210> 5503

<211> 1679

<212> DNA

<213> Homo sapiens

<400> 5503

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120
atttaatcct cacaatagtc aagctaggaa ggtaagtgtg gaattattac cccatttgat
180
aggtagacaa attaaagctt aagatcaaac cgtttgcaa gcaggaagca gcacttcctc
240
ttggtccagt tcttccttct ccttggtgct aaggtcagtg gatgttggt cccacaggc
300
cagaaagctg gagagaagcc cctggctgca ggacccgggg aggaggaact gctccggggc
360
tcagcccctc atgctcagga cactcagagt gaggaactgc caccctcctg caccatctca
420
ggagagaaga agccgccagc agtctctgga gaagccaccg gggctgatgc tgggagactg
480
tgcccgcccc cccgctccag ggctccccac aaagacagaa ctctagcccg ctccaggccc
540
cagactcagg ggaagattg ttccctccca gtgggagagg tgaagatagg aaagaggtcc
600
tattctccag ccccgaggaa gcagaaaaag cctaagtcca tgggtctggc cccaacatca
660
tctccgggtg cccctaactc agcccggtgc acacacaacc cagtgcctg tgggtcaggc
720
cgggggccct gccacctggc caatctcctc agtacattgg cgagagcaa ccaaacaga
780
gaccacaagc aggggcccc ggaagtgacc tgccaaatta ggaaaaagac acgaacccta
840
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900
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960
aagggggccg gctcactggt ggcagggtgg agtggcggag ggcccaccat tgaaacactc
1020
gaattgcaga gtgagcgctc agcggtagcc tgggtgtggt tccagaatcg ccgggccaaag
1080
tggcgaaaaa tggagaaact gaatgggaaa gaaagcaagg acaatcctgc agcccctggc
1140
cctgccagca gtcaatgcag ctctgcagct gagatcctac ctgctgtgcc catggagcca
1200
aagcctgacc ctttcctca ggagtccct ctggatacct ttccagagcc ccccatgctg
1260
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1320
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1440
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1560
agaggggttaa ctgagaggag cacagagtgg tacaggagat ggggatgaaa gggataaggg
1620
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1679

<210> 5504
 <211> 392
 <212> PRT
 <213> Homo sapiens

<400> 5504
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 Leu Pro Pro Ser Cys Thr Ile Ser Gly Glu Lys Lys Pro Pro Ala Val
 35 40 45
 Ser Gly Glu Ala Thr Gly Ala Asp Ala Gly Arg Leu Cys Pro Pro Pro
 50 55 60
 Arg Ser Arg Ala Pro His Lys Asp Arg Thr Leu Ala Arg Ser Arg Pro
 65 70 75 80
 Gln Thr Gln Gly Glu Asp Cys Ser Leu Pro Val Gly Glu Val Lys Ile
 85 90 95
 Gly Lys Arg Ser Tyr Ser Pro Ala Pro Gly Lys Gln Lys Lys Pro Asn
 100 105 110
 Ala Met Gly Leu Ala Pro Thr Ser Ser Pro Gly Ala Pro Asn Ser Ala
 115 120 125
 Arg Ala Thr His Asn Pro Val Pro Cys Gly Ser Gly Arg Gly Pro Cys
 130 135 140
 His Leu Ala Asn Leu Leu Ser Thr Leu Ala Gln Ser Asn Gln Asn Arg
 145 150 155 160
 Asp His Lys Gln Gly Pro Pro Glu Val Thr Cys Gln Ile Arg Lys Lys
 165 170 175
 Thr Arg Thr Leu Tyr Arg Ser Asp Gln Leu Glu Glu Leu Glu Lys Ile
 180 185 190
 Phe Gln Glu Asp His Tyr Pro Asp Ser Asp Lys Arg Arg Glu Ile Ala
 195 200 205
 Gln Thr Val Gly Val Thr Pro Gln Arg Ile Met Val Lys Gly Ala Gly
 210 215 220
 Ser Leu Val Ala Gly Trp Ser Gly Gly Gly Pro Thr Ile Glu Thr Leu
 225 230 235 240
 Glu Leu Gln Ser Glu Arg Ser Ala Val Ala Trp Val Trp Phe Gln Asn
 245 250 255
 Arg Arg Ala Lys Trp Arg Lys Met Glu Lys Leu Asn Gly Lys Glu Ser
 260 265 270
 Lys Asp Asn Pro Ala Ala Pro Gly Pro Ala Ser Ser Gln Cys Ser Ser
 275 280 285
 Ala Ala Glu Ile Leu Pro Ala Val Pro Met Glu Pro Lys Pro Asp Pro
 290 295 300
 Phe Pro Gln Glu Ser Pro Leu Asp Thr Phe Pro Glu Pro Pro Met Leu
 305 310 315 320
 Leu Thr Ser Asp Gln Thr Leu Ala Pro Thr Gln Pro Ser Glu Gly Ala
 325 330 335
 Gln Arg Val Val Thr Pro Pro Leu Phe Ser Pro Pro Pro Val Arg Arg
 340 345 350
 Ala Asp Leu Pro Phe Pro Leu Gly Pro Val His Thr Pro Gln Leu Met
 355 360 365
 Pro Leu Leu Met Asp Val Ala Gly Ser Asp Ser Ser His Lys Asp Gly

370 375 380
 Pro Cys Gly Ser Trp Gly Thr Arg
 385 390

<210> 5505
 <211> 1099
 <212> DNA
 <213> Homo sapiens

<400> 5505
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 120
 gagctgttca cgcacgtgcc cgcgcgccag ctgctgctga actgcgcct ggtctgcagc
 180
 ctctggcggg acctcatcga cctcgtgacc ctctggaaac gcaagtgcct gcgagagggc
 240
 ttcactactg aggactggga ccagcccgtg gccgactgga agatcttcta cttcttacgg
 300
 agcctgcaca ggaacctcct gcacaacccg tgcgctgaag aggggttcga gttctggagc
 360
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 420
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 480
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 540
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 660
 gcgaccatcc agcagaagag cgatgccaa gtagggaggg tctccacac attctccaac
 720
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 780
 gccggctggg acggcccag ggtcaccaac agcagcatca ccatcgggccc cccgctgccc
 840
 tgacaccccc tgagccccc tctgctgaac cctgactggt aaacaactgc tgtcagaaaa
 900
 gggctgggct tgggaagggg aggtggaggc cagggtgtccc cagacctcta acccttgccc
 960
 ctagcagcct cttctttgtg gagcctctca gtgtgggcag ccctcgcatg ctggggctcg
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 1080
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 1099

<210> 5506
 <211> 280
 <212> PRT
 <213> Homo sapiens

<400> 5506

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 Gln Glu Gly Val Gln Lys Pro Gln Ala Met Ala Val Gly Asn Ile Asn
 20 25 30
 Glu Leu Pro Glu Asn Ile Leu Leu Glu Leu Phe Thr His Val Pro Ala
 35 40 45
 Arg Gln Leu Leu Leu Asn Cys Arg Leu Val Cys Ser Leu Trp Arg Asp
 50 55 60
 Leu Ile Asp Leu Val Thr Leu Trp Lys Arg Lys Cys Leu Arg Glu Gly
 65 70 75 80
 Phe Ile Thr Glu Asp Trp Asp Gln Pro Val Ala Asp Trp Lys Ile Phe
 85 90 95
 Tyr Phe Leu Arg Ser Leu His Arg Asn Leu Leu His Asn Pro Cys Ala
 100 105 110
 Glu Glu Gly Phe Glu Phe Trp Ser Leu Asp Val Asn Gly Gly Asp Glu
 115 120 125
 Trp Lys Val Glu Asp Leu Ser Arg Asp Gln Arg Lys Glu Phe Pro Asn
 130 135 140
 Asp Gln Val Lys Lys Tyr Phe Val Thr Ser Tyr Tyr Thr Cys Leu Lys
 145 150 155 160
 Ser Gln Val Val Asp Leu Lys Ala Glu Gly Tyr Trp Glu Glu Leu Leu
 165 170 175
 Asp Thr Phe Arg Pro Asp Ile Val Val Lys Asp Trp Phe Ala Ala Arg
 180 185 190
 Ala Asp Cys Gly Cys Thr Tyr Gln Leu Lys Val Gln Leu Leu Ser Ala
 195 200 205
 Asp Tyr Phe Val Leu Ala Ser Phe Glu Pro Asp Pro Ala Thr Ile Gln
 210 215 220
 Gln Lys Ser Asp Ala Lys Trp Arg Glu Val Ser His Thr Phe Ser Asn
 225 230 235 240
 Tyr Pro Pro Gly Val Arg Tyr Ile Trp Phe Gln His Gly Gly Val Asp
 245 250 255
 Thr His Tyr Trp Ala Gly Trp Tyr Gly Pro Arg Val Thr Asn Ser Ser
 260 265 270
 Ile Thr Ile Gly Pro Pro Leu Pro
 275 280

<210> 5507

<211> 1658

<212> DNA

<213> Homo sapiens

<400> 5507

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 120
 aagcaatttc tcacctttga caaacagggtc cttcgattct atgcaatctg ggatgatata
 180
 gacagcatgt atggtgaatg tcggacctac atcattcatt actatcttat ggatgatagc
 240
 gtggaaattc gagagggtcca cgaacggaat gatgggagag atcctttccc actcctaagt
 300

aaccgccagc gtgtgccc aa agttttggtg gaaaatgcaa agaacttccc tcagtgtgtg
360
ctagaaatct ctgaccaaga agtggttgaa tggatatactg ctaaagactt cattgttggg
420
aagtcactca ctatccttgg gagaactttc ttcatttatg attgtgatcc atttactcga
480
cggattaca aagagaagtt tggaatcact gatttaccac gtattgatgt gagcaagcgg
540
gaaccacctc cagtaaaaca ggagttgcct ccttataacg gttttggact agtggaagat
600
tctgctcaga attgttttgc tctcattcca aaagctccaa aaaaagacgt tatta aaatg
660
ctggtgaatg ataacaaggt gcttcgttat ttggctgtac tggaatcccc catcccagaa
720
gacaaagacc gcagatttgt cttctcttac tttctagcta ccgacatgat cagtatcttt
780
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900
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960
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aaccatgtcc gaaagcgaga agcgctgct ccagaagcag aaagcaagca aactgaaaag
1080
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1140
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1200
tatgtggaca gagacatgtt ctttaaaatc tgtgaatcgc ttaacgtccc agtggatgac
1260
tccttggtta aggagttaat caggatgtgc tctcatggag aaggcaaaat taactactat
1320
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1380
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1500
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1560
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1658

<210> 5508

<211> 448

<212> PRT

<213> Homo sapiens

<400> 5508

Xaa Leu Glu Ser Gln Gly Ile Glu Leu Asn Pro Pro Glu Lys Met Ala

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			20				25						30			
Thr	Pro	Ser	Asp	Phe	Asp	Gln	Leu	Lys	Gln	Phe	Leu	Thr	Phe	Asp	Lys	
			35				40						45			
Gln	Val	Leu	Arg	Phe	Tyr	Ala	Ile	Trp	Asp	Asp	Thr	Asp	Ser	Met	Tyr	
			50				55						60			
Gly	Glu	Cys	Arg	Thr	Tyr	Ile	Ile	His	Tyr	Tyr	Leu	Met	Asp	Asp	Thr	
65				70						75			80			
Val	Glu	Ile	Arg	Glu	Val	His	Glu	Arg	Asn	Asp	Gly	Arg	Asp	Pro	Phe	
			85				90						95			
Pro	Leu	Leu	Met	Asn	Arg	Gln	Arg	Val	Pro	Lys	Val	Leu	Val	Glu	Asn	
			100				105						110			
Ala	Lys	Asn	Phe	Pro	Gln	Cys	Val	Leu	Glu	Ile	Ser	Asp	Gln	Glu	Val	
			115				120						125			
Leu	Glu	Trp	Tyr	Thr	Ala	Lys	Asp	Phe	Ile	Val	Gly	Lys	Ser	Leu	Thr	
			130				135						140			
Ile	Leu	Gly	Arg	Thr	Phe	Phe	Ile	Tyr	Asp	Cys	Asp	Pro	Phe	Thr	Arg	
145				150						155			160			
Arg	Tyr	Tyr	Lys	Glu	Lys	Phe	Gly	Ile	Thr	Asp	Leu	Pro	Arg	Ile	Asp	
			165				170						175			
Val	Ser	Lys	Arg	Glu	Pro	Pro	Pro	Val	Lys	Gln	Glu	Leu	Pro	Pro	Tyr	
			180				185						190			
Asn	Gly	Phe	Gly	Leu	Val	Glu	Asp	Ser	Ala	Gln	Asn	Cys	Phe	Ala	Leu	
			195				200						205			
Ile	Pro	Lys	Ala	Pro	Lys	Lys	Asp	Val	Ile	Lys	Met	Leu	Val	Asn	Asp	
			210				215						220			
Asn	Lys	Val	Leu	Arg	Tyr	Leu	Ala	Val	Leu	Glu	Ser	Pro	Ile	Pro	Glu	
225				230						235			240			
Asp	Lys	Asp	Arg	Arg	Phe	Val	Phe	Ser	Tyr	Phe	Leu	Ala	Thr	Asp	Met	
			245				250						255			
Ile	Ser	Ile	Phe	Glu	Pro	Pro	Val	Arg	Asn	Ser	Gly	Ile	Ile	Gly	Gly	
			260				265						270			
Lys	Tyr	Leu	Gly	Arg	Thr	Lys	Val	Val	Lys	Pro	Tyr	Ser	Thr	Val	Asp	
			275				280						285			
Asn	Pro	Val	Tyr	Tyr	Gly	Pro	Ser	Asp	Phe	Phe	Ile	Gly	Ala	Val	Ile	
			290				295						300			
Glu	Val	Phe	Gly	His	Arg	Phe	Ile	Ile	Leu	Asp	Thr	Asp	Glu	Tyr	Val	
305				310						315			320			
Leu	Lys	Tyr	Met	Glu	Ser	Asn	Ala	Ala	Gln	Tyr	Ser	Pro	Glu	Ala	Leu	
			325				330						335			
Ala	Ser	Ile	Gln	Asn	His	Val	Arg	Lys	Arg	Glu	Ala	Pro	Ala	Pro	Glu	
			340				345						350			
Ala	Glu	Ser	Lys	Gln	Thr	Glu	Lys	Asp	Pro	Gly	Val	Gln	Glu	Leu	Glu	
			355				360						365			
Ala	Leu	Ile	Asp	Thr	Ile	Gln	Lys	Gln	Leu	Lys	Asp	His	Ser	Cys	Lys	
			370				375						380			
Asp	Asn	Ile	Arg	Glu	Ala	Phe	Gln	Ile	Tyr	Asp	Lys	Glu	Ala	Ser	Gly	
385				390						395			400			
Tyr	Val	Asp	Arg	Asp	Met	Phe	Phe	Lys	Ile	Cys	Glu	Ser	Leu	Asn	Val	
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<210> 5509
 <211> 818
 <212> DNA
 <213> Homo sapiens

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 660
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 720
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 818

<210> 5510
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 5510
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 Gly Val Lys Pro Pro Glu Ser His Val Cys Gly Glu Val Gly Val Gly
 35 40 45
 Tyr Pro Ser Thr Glu Arg His Ile Arg Asp Arg Leu Gly Arg Lys Pro
 50 55 60
 Cys Glu Tyr Gln Glu Cys Arg Gln Lys Ala Tyr Thr Cys Lys Pro Cys
 65 70 75 80
 Gly Asn Ala Phe Arg Phe His His Ser Phe His Ile His Glu Arg Pro

85 90 95
 His Ser Gly Glu Asn Leu Tyr Glu Cys
 100 105

<210> 5511
 <211> 379
 <212> DNA
 <213> Homo sapiens

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<210> 5512
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 <213> Homo sapiens

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 35 40 45
 Lys Trp Arg Glu Glu His Arg Leu Ser Ala Thr Gln Gln Ser Glu Leu
 50 55 60
 Arg Asp Val Cys Asp Tyr Ala Ile Glu Thr Met Pro Ser Phe Pro Lys
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<210> 5513
 <211> 837
 <212> DNA
 <213> Homo sapiens

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<210> 5514

<211> 248

<212> PRT

<213> Homo sapiens

<400> 5514

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			20				25						30		
Gly	Gly	Pro	Ala	Glu	Leu	Ser	Leu	Arg	Leu	Gly	Glu	Pro	Leu	Thr	Ile
		35				40					45				
Val	Ser	Glu	Asp	Gly	Asp	Trp	Trp	Thr	Val	Leu	Ser	Glu	Val	Ser	Gly
	50				55					60					
Arg	Glu	Tyr	Asn	Ile	Pro	Ser	Val	His	Val	Ala	Lys	Val	Ser	His	Gly
65				70					75					80	
Trp	Leu	Tyr	Glu	Gly	Leu	Ser	Arg	Glu	Lys	Ala	Glu	Asp	Leu	Leu	Leu
			85					90					95		
Leu	Pro	Gly	Asn	Pro	Gly	Gly	Ala	Phe	Leu	Ile	Arg	Glu	Ser	Gln	Thr
			100				105					110			
Arg	Arg	Gly	Ser	Tyr	Ser	Leu	Ser	Val	Arg	Leu	Ser	Arg	Pro	Ala	Ser
	115					120					125				
Trp	Asp	Arg	Ile	Arg	His	Tyr	Arg	Ile	His	Cys	Leu	Asp	Asn	Gly	Trp
	130				135					140					
Leu	Tyr	Ile	Ser	Pro	Arg	Leu	Thr	Phe	Pro	Ser	Leu	Gln	Ala	Leu	Val
145				150					155					160	
Asp	His	Tyr	Ser	Glu	Leu	Ala	Asp	Asp	Ile	Cys	Cys	Leu	Leu	Lys	Glu

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Pro Cys Val Leu Gln Arg Ala Gly Pro Leu Pro Gly Lys Asp Ile Pro
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Leu Pro Val Thr Val Gln Arg Thr Pro Leu Asn Trp Lys Glu Leu Asp
                195                200                205
Ser Ser Leu Leu Phe Ser Glu Ala Ala Thr Gly Glu Glu Ser Leu Leu
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Glu Ala Val Ser Leu Asp Asp Ala
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<210> 5515

<211> 420

<212> DNA

<213> Homo sapiens

<400> 5515

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<210> 5516

<211> 120

<212> PRT

<213> Homo sapiens

<400> 5516

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Arg Gln Lys Lys Leu Glu Met Glu Lys Leu Gln Leu Gln Ala Leu Glu
35        40        45
Gln Glu His Lys Lys Leu Ala Ala Arg Leu Glu Glu Glu Arg Gly Lys
50        55        60
Asn Lys Gln Val Val Leu Met Leu Val Lys Glu Cys Lys Gln Leu Ser
65        70        75        80
Ser Lys Val Ile Glu Glu Ala Gln Lys Leu Glu Asp Val Met Ala Lys
85        90        95
Leu Ala Ser Ser Leu Cys His Gln His Leu Leu His Ser Leu Ser Gly
100       105       110
Val Pro Gly Thr Gly His Ile Asp

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115

120

<210> 5517
 <211> 804
 <212> DNA
 <213> Homo sapiens

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 420
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 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 5518
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 20 25 30
 Ile Val Val Gly Ser Ser Asp Arg Ile Arg Ala Ser Ser Leu Gln Val
 35 40 45
 Gln Lys Gln Phe Lys Thr Leu Met Ile Ala Leu Gln Gln Pro Thr His
 50 55 60
 Gly Asp Met Val Ile Val Pro Thr Cys Cys Ser Val Ile Cys Arg Ala
 65 70 75 80
 Ser Asp Trp Phe Lys

85

<210> 5519
 <211> 401
 <212> DNA
 <213> Homo sapiens

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 120
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<210> 5520
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 5520
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 Trp His Ser Lys Phe Leu Met Val Arg Ser Arg Gly Glu Cys Gly Ala
 20 25 30
 Gln Arg Gln Leu Leu Cys Val Phe Val Phe Arg Asp Ser Leu Arg Glu
 35 40 45
 Gly Asn Ala Arg Arg Asn Met Val Ser Ser Glu Ala His Gly Cys Phe
 50 55 60
 Leu Arg Pro Ala Val Phe Tyr Ala Thr Tyr Pro Cys Thr Ser Tyr Ala
 65 70 75 80
 Lys Glu Thr Lys Pro Ser Ala Cys Leu Phe Pro Leu Leu Ile Ile Gly
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<210> 5521
 <211> 2524
 <212> DNA
 <213> Homo sapiens

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acagacgcat cgtttctttt ttaatactcc ctaagaaagg gaataacctt caagctggcg
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<211> 441

<212> PRT

<213> Homo sapiens

<400> 5522

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			20					25					30		
Ser	Ser	Lys	Asn	Val	Arg	Val	Asn	Cys	Leu	Asp	Glu	Asn	Gly	Met	Thr
		35					40					45			
Pro	Leu	Met	His	Ala	Ala	Tyr	Lys	Gly	Lys	Leu	Asp	Met	Cys	Lys	Leu
		50				55					60				
Leu	Leu	Arg	His	Gly	Ala	Asp	Val	Asn	Cys	His	Gln	His	Glu	His	Gly
65				70					75					80	
Tyr	Thr	Ala	Leu	Met	Phe	Ala	Ala	Leu	Ser	Gly	Asn	Lys	Asp	Ile	Thr
			85					90					95		
Trp	Val	Met	Leu	Glu	Ala	Gly	Ala	Glu	Thr	Asp	Val	Val	Asn	Ser	Val
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Gly	Arg	Thr	Ala	Ala	Gln	Met	Ala	Ala	Phe	Val	Gly	Gln	His	Asp	Cys
		115				120						125			
Val	Thr	Ile	Ile	Asn	Asn	Phe	Phe	Pro	Arg	Glu	Arg	Leu	Asp	Tyr	Tyr
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<212> DNA
<213> Homo sapiens
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<210> 5524

<211> 1193

<212> PRT

<213> Homo sapiens

<400> 5524

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			20					25					30		
Leu	Gln	Arg	Lys	Leu	Ala	Asp	Ser	Ser	His	Ser	Glu	Gln	Gln	Asp	Arg
			35				40					45			
Asn	Arg	Val	Ser	Glu	Glu	Leu	Ile	Met	Val	Val	Gln	Glu	Met	Lys	Lys
			50			55					60				
Tyr	Phe	Pro	Ser	Glu	Arg	Asn	Lys	Pro	Ser	Thr	Leu	Asp	Ala	Leu	
65					70				75					80	
Asn	Tyr	Ala	Leu	Arg	Cys	Val	His	Ser	Val	Gln	Ala	Asn	Ser	Glu	Phe

4702

Tyr Thr Glu Pro Cys Glu Asp Leu Arg Asn Asp Glu His Ser Pro Ser
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 Tyr Gln Gln Ile Asn Cys Ile Asp Ser Val Ile Arg Tyr Leu Lys Ser
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 Tyr Asn Ile Pro Ala Leu Lys Arg Lys Cys Ile Ser Cys Thr Asn Thr
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 Thr Ser Ser Ser Ser Glu Glu Asp Lys Gln Asn His Lys Ala Asp Asp
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 Val Gln Ala Leu Gln Gly Asn Lys Asn Ala Pro Gln Lys Met Pro Thr
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 Asn Gly Arg Ser Ile Asp Thr Gly Gly Gly Ala Pro Gln Ile Leu Ser
 595 600 605
 Thr Ala Met Leu Ser Leu Gly Ser Gly Ile Ser Gln Cys Gly Tyr Ser
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 Ser Thr Ile Val His Val Pro Pro Pro Glu Thr Ala Arg Asp Ala Thr
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 Leu Phe Cys Glu Pro Trp Thr Leu Asn Met Gln Pro Ala Pro Leu Thr
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 Ser Glu Glu Phe Lys His Val Gly Leu Thr Ala Ala Val Leu Ser Ala
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 His Thr Gln Lys Glu Glu Gln Asn Tyr Val Asp Lys Phe Arg Glu Lys
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 Arg Ser Ala Gly Cys Arg Lys Gly Lys His Lys Arg Lys Lys Leu Pro
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 785 790 795 800
 Pro Gly Arg Glu Tyr Ala Ala Pro Gly Thr Ala Pro Glu Gly Leu His
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 Gly Pro Pro Leu Ser Glu Gly Leu Gln Pro Tyr Pro Ala Phe Pro Phe
 820 825 830
 Pro Tyr Leu Asp Thr Phe Met Thr Val Phe Leu Pro Asp Pro Pro Val
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 Cys Pro Leu Leu Ser Pro Ser Phe Leu Pro Cys Pro Phe Leu Gly Ala
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 Lys Trp Glu Ala Gln Ser Glu Gly His Pro Phe Ile Thr Ser Arg Ser
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 Ser Ser Pro Leu Gln Leu Asn Leu Leu Gln Glu Glu Met Pro Arg Pro
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 Ser Glu Ser Pro Asp Gln Met Arg Arg Asn Thr Cys Pro Gln Thr Glu
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Tyr Gln Cys Val Thr Gly Asn Asn Gly Ser Glu Ser Ser Pro Ala Thr
 945 950 955 960
 Thr Gly Ala Leu Ser Thr Gly Ser Pro Pro Arg Glu Asn Pro Ser His
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 980 985 990
 Ser His Pro Thr Ala Ser Ala Leu Ser Thr Gly Ser Pro Pro Met Lys
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<210> 5525

<211> 761

<212> DNA

<213> Homo sapiens

<400> 5525

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<211> 102

<212> PRT

<213> Homo sapiens

<400> 5526

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			20					25					30		
Asn	Phe	Thr	Leu	Leu	Ala	Ser	Leu	Gly	Leu	Ala	Ser	Ser	Lys	Thr	His
		35					40					45			
Glu	Ile	Thr	Gln	Leu	Glu	Ser	Trp	Glu	Glu	Pro	Phe	Met	Pro	Ala	Trp
		50				55				60					
Glu	Val	Val	Thr	Ser	Ala	Ile	Pro	Arg	Glu	Thr	Leu	Arg	Met	Ala	Phe
65					70				75					80	
Met	Arg	Glu	Leu	Ala	Ile	Glu	His	His	Ser	Ser	Lys	Tyr	Ala	His	Trp
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<210> 5527

<211> 728

<212> DNA

<213> Homo sapiens

<400> 5527

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<211> 176

<212> PRT

<213> Homo sapiens

<400> 5528

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			20					25					30		
Val	Thr	Gly	Leu	Lys	Leu	Ser	Gln	Asp	Leu	Asp	Asp	Leu	Ala	Ile	Leu
		35					40					45			
Tyr	Leu	Ala	Thr	Val	Gln	Ala	Ile	Ala	Leu	Gly	Thr	Arg	Phe	Ile	Ile
	50					55					60				
Glu	Ala	Met	Glu	Ala	Ala	Gly	His	Ser	Ile	Ser	Thr	Leu	Phe	Leu	Cys
65					70					75				80	
Gly	Gly	Leu	Ser	Lys	Asn	Pro	Leu	Phe	Val	Gln	Met	His	Ala	Asp	Ile
				85					90					95	
Thr	Gly	Met	Pro	Val	Val	Leu	Ser	Gln	Glu	Val	Glu	Ser	Val	Leu	Val
			100					105					110		
Gly	Ala	Ala	Val	Leu	Gly	Ala	Cys	Ala	Ser	Gly	Asp	Phe	Ala	Ser	Val
		115					120					125			
Gln	Glu	Ala	Met	Ala	Lys	Met	Ser	Lys	Val	Gly	Lys	Val	Val	Phe	Pro
		130				135					140				
Arg	Leu	Gln	Asp	Lys	Lys	Tyr	Tyr	Asp	Lys	Lys	Tyr	Gln	Val	Phe	Leu
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<210> 5529

<211> 2602

<212> DNA

<213> Homo sapiens

<400> 5529

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<210> 5530

<211> 603

<212> PRT

<213> Homo sapiens

<400> 5530

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			20					25					30		
Leu	Asn	Leu	Cys	Ala	Arg	Arg	Arg	Thr	Arg	Val	Gln	Arg	Pro	Ile	Val
			35				40					45			
Arg	Leu	Leu	Ser	Cys	Pro	Gly	Thr	Val	Ala	Lys	Asp	Leu	Arg	Arg	Asp
			50				55				60				
Glu	Gln	Pro	Ser	Gly	Ser	Val	Glu	Thr	Gly	Phe	Glu	Asp	Lys	Ile	Pro
						70				75				80	
Lys	Arg	Arg	Phe	Ser	Glu	Met	Gln	Asn	Glu	Arg	Arg	Glu	Gln	Ala	Gln
						85				90				95	
Arg	Thr	Val	Leu	Ile	His	Cys	Pro	Glu	Lys	Ile	Ser	Glu	Asn	Lys	Phe
			100					105					110		
Leu	Lys	Tyr	Leu	Ser	Gln	Phe	Gly	Pro	Ile	Asn	Asn	His	Phe	Phe	Tyr
			115				120					125			
Glu	Ser	Phe	Gly	Leu	Tyr	Ala	Val	Val	Glu	Phe	Cys	Gln	Lys	Glu	Ser
			130				135					140			
Ile	Gly	Ser	Leu	Gln	Asn	Gly	Thr	His	Thr	Pro	Ser	Thr	Ala	Met	Glu

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Leu	Thr	Met	Met	Val	Ile	Phe	Phe	Leu	Gln	Arg	Arg	Ser	Pro	Pro
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Gln	Ser	Gln	Leu	Gln	Lys	Phe	Val	Asp	Leu	Ala	Arg	Glu	Ser	Ala
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Pro	Trp	Gly	Leu	Val	Ser	Leu	Leu	Leu	Pro	Ser	Ala	Pro	Asn	Arg
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Ser	Phe	Thr	Lys	Lys	Lys	Ser	Asn	Lys	Phe	Ala	Ile	Glu	Thr	Val
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 <212> DNA
 <213> Homo sapiens

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<211> 593

<212> PRT

<213> Homo sapiens

<400> 5532

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Glu	Asn	Gly	Gln	Arg	Lys	Tyr	Gly	Gly	Pro	Pro	Pro	Gly	Trp	Glu	Gly
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Pro	His	Pro	Gln	Arg	Gly	Cys	Glu	Val	Phe	Val	Gly	Lys	Ile	Pro	Arg
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Asp	Val	Tyr	Glu	Asp	Glu	Leu	Val	Pro	Val	Phe	Glu	Ala	Val	Gly	Arg
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Cys	Cys	Ser	Val	Asp	Asn	Cys	Arg	Leu	Phe	Ile	Gly	Gly	Ile	Pro	Lys
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Gly	Val	Leu	Asp	Val	Ile	Val	Tyr	Ala	Ser	Ala	Ala	Asp	Lys	Met	Lys
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Met	Ala	Arg	Arg	Lys	Leu	Met	Pro	Gly	Arg	Ile	Gln	Leu	Trp	Gly	His
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Gln	Ile	Ala	Val	Asp	Trp	Ala	Glu	Pro	Glu	Ile	Asp	Val	Asp	Glu	Asp
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Val	Met	Glu	Thr	Val	Lys	Ile	Leu	Tyr	Val	Arg	Asn	Leu	Met	Ile	Glu
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Thr	Thr	Glu	Asp	Thr	Ile	Lys	Lys	Ser	Phe	Gly	Gln	Phe	Asn	Pro	Gly
			260					265					270		
Cys	Val	Glu	Arg	Val	Lys	Lys	Ile	Arg	Asp	Tyr	Ala	Phe	Val	His	Phe
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Thr	Ser	Arg	Glu	Asp	Ala	Val	His	Ala	Met	Asn	Asn	Leu	Asn	Gly	Thr
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Glu	Leu	Glu	Gly	Ser	Cys	Leu	Glu	Val	Thr	Leu	Ala	Lys	Pro	Val	Asp
305					310					315				320	
Lys	Glu	Gln	Tyr	Ser	Arg	Tyr	Gln	Lys	Ala	Ala	Arg	Gly	Gly	Gly	Ala
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<212> DNA
<213> Homo sapiens
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 <211> 168
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 <213> Homo sapiens

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 35 40 45
 Leu Ala Ser Leu Ser Ala Glu Glu Leu Lys Glu Leu Glu Arg Glu Leu
 50 55 60
 Glu Asp Ile Glu Pro Asp Arg Asn Leu Pro Val Gly Leu Arg Gln Lys
 65 70 75 80
 Ser Leu Thr Glu Lys Thr Pro Thr Gly Thr Phe Ser Arg Glu Ala Leu
 85 90 95
 Met Ala Tyr Trp Glu Lys Glu Ser Gln Lys Leu Leu Glu Lys Glu Arg
 100 105 110
 Leu Gly Glu Cys Gly Lys Val Ala Glu Asp Lys Glu Glu Ser Glu Glu
 115 120 125
 Glu Leu Ile Phe Thr Glu Ser Asn Ser Glu Val Ser Glu Glu Val Tyr
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<210> 5536

<211> 306

<212> PRT

<213> Homo sapiens

<400> 5536

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Tyr Tyr Gln Thr Phe Phe Asp Val Asp Thr Tyr Gln Val Phe Asp Arg
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Ile Lys Gly Ser Leu Leu Pro Ile Pro Gly Lys Asn Phe Val Arg Leu
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Tyr Ile Arg Ser Asn Pro Asp Leu Tyr Gly Pro Phe Trp Ile Cys Ala
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Val Ser Ile Ala Ala Thr Ile Ile Tyr Ala Tyr Ala Trp Leu Val Pro
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225          230          235          240
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<210> 5537

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<212> DNA

<213> Homo sapiens

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<210> 5538

<211> 352

<212> PRT

<213> Homo sapiens

<400> 5538

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Ile Met Cys Met Asp His Leu Glu Glu Met Leu Lys Leu Val Asn Gly		80
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Asn Pro Val Val Met Lys Asp Gly Lys Trp Val Val Gln Lys Tyr Ile		95
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Glu Arg Pro Leu Leu Ile Phe Gly Thr Lys Phe Asp Leu Arg Gln Trp		110
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Phe Leu Val Thr Asp Trp Asn Pro Leu Thr Val Trp Phe Tyr Arg Asp		125
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Ser Tyr Ile Arg Phe Ser Thr Gln Pro Phe Ser Leu Lys Asn Leu Asp		140
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Ser Cys His Arg His Pro Leu Leu Pro Pro Asp Asn Met Trp Ser Ser		170
	175	180
Gln Arg Phe Gln Ala His Leu Gln Glu Met Gly Ala Pro Asn Ala Trp		185
	190	195
Ser Thr Ile Ile Val Pro Gly Met Lys Asp Ala Val Ile His Ala Leu		200
	205	210
Gln Thr Ser Gln Asp Thr Val Gln Cys Arg Lys Ala Ser Phe Glu Leu		215
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Tyr Gly Ala Asp Phe Val Phe Gly Glu Asp Phe Gln Pro Trp Leu Ile		230
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	265	270
Arg Arg Leu Asp Arg Asn Cys Asp Thr Gly Ala Phe Glu Leu Ile Tyr		275
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Lys Gln Pro Val Thr Thr Ser Pro Ala Ser Thr Pro Arg Pro Ser Cys		290
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Leu Leu Pro Met Tyr Ser Asp Thr Arg Ala Arg Ser Ser Asp Asp Ser		305
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<210> 5539

<211> 1887

<212> DNA

<213> Homo sapiens

<400> 5539

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<210> 5540

<211> 378

<212> PRT

<213> Homo sapiens

<400> 5540

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Ala Pro Trp Cys Ser Val Ser Ser Gly Pro Ser Arg Tyr Val Leu Gly
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Met Gln Glu Leu Phe Arg Gly His Ser Lys Thr Arg Glu Phe Leu Ala
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His Ser Ala Lys Val His Ser Val Ala Trp Ser Cys Asp Gly Arg Arg
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Leu Ala Ser Gly Ser Phe Asp Lys Thr Ala Ser Val Phe Leu Leu Glu
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Arg Thr Gly Trp Ser Lys Lys Thr Ile Ile Gly Asp Met Gly Ile Xaa
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Ala Ser Gly Asp Lys Thr Ile Arg Ile Trp Asp Val Arg Thr Thr Lys
      145            150            155            160
Cys Ile Ala Thr Val Asn Thr Lys Gly Glu Asn Ile Asn Ile Cys Trp
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Ser Pro Asp Gly Gln Thr Ile Ala Val Gly Asn Lys Asp Asp Val Val
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Lys Phe Glu Val Asn Glu Ile Ser Trp Asn Asn Asp Asn Asn Met Phe
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Phe Leu Thr Asn Gly Asn Gly Cys Ile Asn Ile Leu Ser Tyr Pro Glu
      225            230            235            240
Leu Lys Pro Val Gln Ser Ile Asn Ala His Pro Ser Asn Cys Ile Cys
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Ile Lys Phe Asp Pro Met Gly Lys Tyr Phe Ala Thr Gly Ser Ala Asp
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Phe Ser Arg Leu Asp Trp Pro Val Arg Thr Leu Ser Phe Ser His Asp
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Gly Lys Met Leu Ala Ser Ala Ser Glu Asp His Phe Ile Asp Ile Ala
      305            310            315            320
Glu Val Glu Thr Gly Asp Lys Leu Trp Glu Val Gln Cys Glu Ser Pro
      325            330            335
Thr Phe Thr Val Ala Trp His Pro Lys Arg Pro Leu Leu Ala Phe Ala
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<210> 5541

<211> 1854

<212> DNA

<213> Homo sapiens

<400> 5541

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<210> 5542

<211> 315

<212> PRT

<213> Homo sapiens

<400> 5542

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Glu	Thr	Ser	Arg	Lys	Asn	Glu	Val	Met	Thr	His	Ser	Gly	Leu	Trp	
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Trp	Ser	Phe	Tyr	Phe	Gly	Ala	Phe	Ser	Phe	Ile	Ile	Ala	Glu	Ile	Val
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<212> DNA
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<211> 1141

<212> PRT

<213> Homo sapiens

<400> 5544

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Leu	Phe	Ala	Glu	Phe	Gln	Lys	Gln	His	Asp	His	Leu	Thr	Arg	Gln	His			
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Arg																		

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Pro	Arg	Gln	Pro	Thr	Thr	His	Pro	Glu	Glu	Thr	Glu	Glu	Glu	Leu	Thr
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<211> 1932

<212> DNA

<213> Homo sapiens

<400> 5545

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<210> 5546

<211> 183
 <212> PRT
 <213> Homo sapiens

<400> 5546

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          35           40           45
Asn Glu Met Leu Leu Asn Phe Asn Asn Leu Ser Ser Ala Arg Leu Gln
          50           55           60
Gln Met Ser Glu Arg Phe Leu His His Thr Arg Thr Leu Val Glu Met
65           70           75           80
Lys Arg Asp Leu Asp Ser Ile Phe Arg Arg Ile Arg Thr Leu Lys Gly
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Lys Leu Ala Arg Gln His Pro Glu Ala Phe Ser His Ile Pro Glu Ala
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Ser Phe Leu Glu Glu Glu Asp Glu Asp Pro Ile Pro Pro Ser Thr Thr
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Pro Asp Thr Val Ser Pro Ser Leu Ser Pro Gly Phe Glu Asp Leu Ser
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 <212> DNA
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<400> 5547

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<210> 5548

<211> 167

<212> PRT

<213> Homo sapiens

<400> 5548

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			20					25					30		
Leu	Gln	Thr	Asn	Val	Arg	Ser	Gln	Ile	Leu	Arg	Leu	Arg	His	Thr	Ala
			35				40					45			
Phe	Val	Ile	Pro	Lys	Lys	Asn	Val	Pro	Thr	Ser	Lys	Arg	Glu	Thr	Tyr
			50			55					60				
Thr	Glu	Asp	Phe	Ile	Lys	Lys	Gln	Ile	Glu	Glu	Phe	Asn	Ile	Gly	Lys
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Arg	His	Leu	Ala	Asn	Met	Met	Gly	Glu	Asp	Pro	Glu	Thr	Phe	Thr	Gln
				85				90					95		
Glu	Asp	Ile	Asp	Arg	Ala	Ile	Ala	Tyr	Leu	Phe	Pro	Ser	Gly	Leu	Phe
			100					105					110		
Glu	Lys	Arg	Ala	Arg	Pro	Val	Met	Lys	His	Pro	Glu	Gln	Ile	Phe	Pro
			115				120					125			
Arg	Gln	Arg	Ala	Ile	Gln	Trp	Gly	Glu	Asp	Gly	Arg	Pro	Phe	His	Tyr

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<210> 5549
 <211> 1865
 <212> DNA
 <213> Homo sapiens

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<210> 5550

<211> 242

<212> PRT

<213> Homo sapiens

<400> 5550

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			20					25					30		
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		35					40					45			
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Lys	Thr	Ser	Ser	Val	Phe	Glu	Asp	Pro	Val	Ile	Ser	Lys	Phe	Thr	Asn
			85					90						95	
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<211> 1689

<212> DNA

<213> Homo sapiens

<400> 5551

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<210> 5552

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5552

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Ser	Val	Leu	Ser	Arg	Leu	Ser	Leu	Phe	Pro	His	Pro	His	Ile	His	Glu
			20					25					30		
Tyr	Leu	Leu	Asp	Pro	Tyr	Val	Asn	Leu	Ala	Pro	Gly	Cys	Arg	Ser	Leu
		35					40					45			
Phe	Ser	Val	Ile	Val	Arg	Val	Val	Gly	Asp	Leu	Met	Leu	Arg	Ile	Gln
		50				55					60				
Arg	Ile	Gln	Asp	Phe	Thr	Pro	Lys	Leu	Leu	Leu	Val	Arg	Lys	Arg	Leu
65					70					75				80	
Leu	Gly	Leu	Glu	Pro	Glu	Gly	Pro	Ile	Ser	Asp	Leu	Glu	Pro	Val	Glu
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							100								

<210> 5553

<211> 274

<212> DNA

<213> Homo sapiens

<400> 5553

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 caccagaccc taaagtcaga ataaccggcc cagctacagc ccctgcggtc gtgcttagcc
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 240

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274

<210> 5554
<211> 90
<212> PRT
<213> Homo sapiens

<400> 5554
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20 25 30
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35 40 45
Gly Pro Ala Thr Ala Pro Ala Val Val Leu Ser His Tyr Arg Gly Cys
50 55 60
Tyr Phe Pro Ser Gln Cys Pro Trp Gln Pro Trp Lys Pro Met Lys Gln
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Ala Leu Thr Gln Glu Ser Leu Cys Ile Phe
85 90

<210> 5555
<211> 414
<212> DNA
<213> Homo sapiens

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120
cacagggtctg tgattctaga agggacagct gtgagggggcc gggacaggct aagctggagg
180
actcaccaga cttgcggggg tcaacacgct ccagatgtct cctagacctc tcacactcag
240
cacatccaaa cctgaaccca gcaactggcc ccacacctgt cccctggcta gagacggggg
300
cctcagccca gctgttcccc ttctcccaca gcctctcagc tgcgtgtcgg gtccattctg
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414

<210> 5556
<211> 115
<212> PRT
<213> Homo sapiens

<400> 5556
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20 25 30
Glu Ser Gln Gly Cys Asp Ser Arg Arg Asp Ser Cys Glu Gly Pro Gly

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      35              40              45
Gln Ala Lys Leu Glu Asp Ser Pro Asp Leu Arg Gly Ser Thr Arg Ser
  50              55              60
Arg Cys Leu Leu Asp Leu Ser His Ser Ala His Pro Asn Leu Asn Pro
  65              70              75              80
Ala Pro Gly Pro Thr Pro Val Pro Trp Leu Glu Thr Gly Ala Ser Ala
      85              90              95
Gln Leu Phe Pro Phe Ser His Ser Leu Ser Ala Ala Cys Arg Val His
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Ser Ala Ser
      115

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<210> 5557

<211> 1970

<212> DNA

<213> Homo sapiens

<400> 5557

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 240
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 360
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 420
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 720
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 780
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 840
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 900
cggcagaagc cttcccagag cccctctgcc cctcctgccg acgtcacccc aaagccagcc
 960
acggaagccg tgcagagcga gcacagcgac gccagcccca tgtccatcaa cgaggtcac
1020
ctgtcggcgt caggggcctg caagctcacc gactcactgc actcctactg cttctcctcc
1080

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<210> 5558

<211> 360

<212> PRT

<213> Homo sapiens

<400> 5558

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			20					25					30		
Ser	Val	Pro	Arg	Glu	Pro	Ile	Asp	Arg	Lys	Arg	Leu	Lys	Lys	Asp	Val
		35					40					45			
Glu	Pro	Ser	Cys	Ser	Gly	Ser	Ser	Leu	Gly	Pro	Asp	Lys	Gly	Leu	Ala
	50					55					60				
Gln	Ser	Pro	Pro	Ser	Ser	Ser	Leu	Thr	Ala	Thr	Arg	Gln	Lys	Pro	Ser
65				70					75					80	
Gln	Ser	Pro	Ser	Ala	Pro	Pro	Ala	Asp	Val	Thr	Pro	Lys	Pro	Ala	Thr
			85					90						95	
Glu	Ala	Val	Gln	Ser	Glu	His	Ser	Asp	Ala	Ser	Pro	Met	Ser	Ile	Asn
		100					105					110			
Glu	Val	Ile	Leu	Ser	Ala	Ser	Gly	Ala	Cys	Lys	Leu	Ile	Asp	Ser	Leu
		115					120					125			
His	Ser	Tyr	Cys	Phe	Ser	Ser	Arg	Gln	Asn	Lys	Ser	Gln	Val	Cys	Cys

130	135	140
Leu Arg Glu Gln Val	Glu Lys Lys Asn Gly Glu	Leu Lys Ser Leu Arg
145	150	155
Gln Arg Val Ser Arg	Ser Asp Ser Gln Val Arg	Lys Leu Gln Glu Lys
165	170	175
Leu Asp Glu Leu Arg	Arg Val Ser Val Pro Tyr Pro	Ser Ser Leu Leu
180	185	190
Ser Pro Ser Arg Glu	Pro Pro Lys Met Asn Pro	Val Val Glu Pro Leu
195	200	205
Ser Trp Met Leu Gly	Thr Trp Leu Ser Asp Pro	Pro Gly Ala Gly Thr
210	215	220
Tyr Pro Thr Leu Gln	Pro Phe Gln Tyr Leu Glu	Glu Val His Ile Ser
225	230	235
His Val Gly Gln Pro	Met Leu Asn Phe Ser Phe	Asn Ser Phe His Pro
245	250	255
Asp Thr Arg Lys Pro	Met His Arg Glu Cys Gly	Phe Ile Arg Leu Lys
260	265	270
Pro Asp Thr Asn Lys	Val Ala Phe Val Ser Ala	Gln Asn Thr Gly Val
275	280	285
Val Glu Val Glu Glu	Gly Glu Val Asn Gly Gln	Glu Leu Cys Ile Ala
290	295	300
Ser His Ser Ile Ala	Arg Ile Ser Phe Ala Lys	Glu Pro His Val Glu
305	310	315
Gln Ile Thr Arg Lys	Phe Arg Leu Asn Ser Glu	Gly Lys Leu Glu Gln
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Thr Val Ser Met Ala	Thr Thr Thr Gln Pro Met	Thr Gln His Leu His
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Val Thr Tyr Lys Lys	Val Thr Pro	
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<210> 5559

<211> 3866

<212> DNA

<213> Homo sapiens

<400> 5559

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540

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<210> 5560

<211> 1165

<212> PRT

<213> Homo sapiens

<400> 5560

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Asn	Gly	Thr	Tyr	Gly	Gln	Val	Tyr	Lys	Gly	Arg	His	Val	Lys	Thr	Gly	35	40	45	
Gln	Leu	Ala	Ala	Ile	Lys	Val	Met	Asp	Val	Thr	Glu	Asp	Glu	Glu	Glu	50	55	60	
Glu	Ile	Lys	Leu	Glu	Ile	Asn	Met	Leu	Lys	Lys	Tyr	Ser	His	His	Arg	65	70	75	80
Asn	Ile	Ala	Thr	Tyr	Tyr	Gly	Ala	Phe	Ile	Lys	Lys	Ser	Pro	Pro	Gly	85	90	95	
His	Asp	Asp	Gln	Leu	Trp	Leu	Val	Met	Glu	Phe	Cys	Gly	Ala	Gly	Ser	100	105	110	
Ile	Thr	Asp	Leu	Val	Lys	Asn	Thr	Lys	Gly	Asn	Thr	Leu	Lys	Glu	Asp	115	120	125	
Trp	Ile	Ala	Tyr	Ile	Ser	Arg	Glu	Ile	Leu	Arg	Gly	Leu	Ala	His	Leu	130	135	140	
His	Ile	His	His	Val	Ile	His	Arg	Asp	Ile	Lys	Gly	Gln	Asn	Val	Leu	145	150	155	160
Leu	Thr	Glu	Asn	Ala	Glu	Val	Lys	Leu	Val	Asp	Phe	Gly	Val	Ser	Ala	165	170	175	
Gln	Leu	Asp	Arg	Thr	Val	Gly	Arg	Arg	Asn	Thr	Phe	Ile	Gly	Thr	Pro	180	185	190	
Tyr	Trp	Met	Ala	Pro	Glu	Val	Ile	Ala	Cys	Asp	Glu	Asn	Pro	Asp	Ala	195	200	205	
Thr	Tyr	Asp	Tyr	Arg	Ser	Asp	Leu	Trp	Ser	Cys	Gly	Ile	Thr	Ala	Ile	210	215	220	
Glu	Met	Ala	Glu	Gly	Ala	Pro	Pro	Leu	Cys	Asp	Met	His	Pro	Met	Arg	225	230	235	240
Ala	Leu	Phe	Leu	Ile	Pro	Arg	Asn	Pro	Pro	Pro	Arg	Leu	Lys	Ser	Lys	245	250	255	
Lys	Trp	Ser	Lys	Lys	Phe	Ile	Asp	Phe	Ile	Asp	Thr	Cys	Leu	Ile	Lys	260	265	270	
Thr	Tyr	Met	Gln	Arg	Pro	Thr	Thr	Glu	Gln	Leu	Leu	Lys	Phe	Pro	Phe	275	280	285	
Ile	Arg	Asp	Gln	Pro	Thr	Glu	Arg	Gln	Val	Arg	Ile	Gln	Leu	Lys	Asp	290	295	300	
His	Ile	Asp	Arg	Thr	Arg	Lys	Lys	Arg	Gly	Glu	Lys	Glu	Glu	Thr	Glu	305	310	315	320
Tyr	Glu	Tyr	Ser	Gly	Ser	Glu	Glu	Glu	Asp	Asp	Ser	His	Gly	Glu	Glu	325	330	335	
Gly	Glu	Pro	Ser	Ser	Ile	Met	Asn	Val	Pro	Gly	Glu	Ser	Thr	Leu	Arg				

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Arg Asp Phe Leu Arg Leu Gln Gln Glu Asn Lys Glu Arg Ser Glu Ala
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      370      375      380
Glu Tyr Lys Arg Gln Leu Leu Ala Glu Arg Gln Lys Arg Ile Glu Gln
385      390      395      400
Gln Lys Glu Gln Arg Arg Arg Leu Glu Glu Gln Gln Arg Arg Glu Arg
      405      410      415
Glu Ala Arg Arg Gln Gln Glu Arg Glu Gln Arg Arg Arg Glu Gln Glu
      420      425      430
Glu Lys Arg Arg Leu Glu Glu Leu Glu Arg Arg Arg Lys Glu Glu Glu
      435      440      445
Glu Arg Arg Arg Ala Glu Glu Glu Lys Arg Arg Val Glu Arg Glu Gln
      450      455      460
Glu Tyr Ile Arg Arg Gln Leu Glu Glu Glu Gln Arg His Leu Glu Val
465      470      475      480
Leu Gln Gln Gln Leu Leu Gln Glu Gln Ala Met Leu Leu His Asp His
      485      490      495
Arg Arg Pro His Pro Gln His Ser Gln Gln Pro Pro Pro Pro Gln Gln
      500      505      510
Glu Arg Ser Lys Pro Ser Phe His Ala Pro Glu Pro Lys Ala His Tyr
      515      520      525
Glu Pro Ala Asp Arg Ala Arg Glu Val Pro Val Arg Thr Thr Ser Arg
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Ser Pro Val Leu Ser Arg Arg Asp Ser Pro Leu Gln Gly Ser Gly Gln
545      550      555      560
Gln Asn Ser Gln Ala Gly Gln Arg Asn Ser Thr Ser Ser Ile Glu Pro
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Arg Leu Leu Trp Glu Arg Val Glu Lys Leu Val Pro Arg Pro Gly Ser
      580      585      590
Gly Ser Ser Ser Gly Ser Ser Asn Ser Gly Ser Gln Pro Gly Ser His
      595      600      605
Pro Gly Ser Gln Ser Gly Ser Gly Glu Arg Phe Arg Val Arg Ser Ser
      610      615      620
Ser Lys Ser Glu Gly Ser Pro Ser Gln Arg Leu Glu Asn Ala Val Lys
625      630      635      640
Lys Pro Glu Asp Lys Lys Glu Val Phe Arg Pro Leu Lys Pro Ala Gly
      645      650      655
Glu Val Asp Leu Thr Ala Leu Ala Lys Glu Leu Arg Ala Val Glu Asp
      660      665      670
Val Arg Pro Pro His Lys Val Thr Asp Tyr Ser Ser Ser Ser Glu Glu
      675      680      685
Ser Gly Thr Thr Asp Glu Glu Asp Asp Asp Val Glu Gln Glu Gly Ala
      690      695      700
Asp Glu Ser Thr Ser Gly Pro Glu Asp Thr Arg Ala Ala Ser Ser Leu
705      710      715      720
Asn Leu Ser Asn Gly Glu Thr Glu Ser Val Lys Thr Met Ile Val His
      725      730      735
Asp Asp Val Glu Ser Glu Pro Ala Met Thr Pro Ser Lys Glu Gly Thr
      740      745      750
Leu Ile Val Arg Gln Thr Gln Ser Ala Ser Ser Thr Leu Gln Lys His
      755      760      765
Lys Ser Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu Leu Gln

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Ile Ser Pro Ser Ser Gly Thr Thr Val Thr Ser Val Val Gly Phe Ser
785              790              795              800
Cys Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr Arg Lys
      805              810              815
Gly Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln Ser Asp
      820              825              830
Thr Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu Ile Leu
      835              840              845
Cys Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu Ser Gly
      850              855              860
Leu Met Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro Leu Ile
865              870              875              880
Asn Arg Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu Asn Val
      885              890              895
Leu Val Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr Tyr Leu
      900              905              910
Ser Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val Glu Lys
      915              920              925
Lys Gln Gly Trp Thr Thr Val Gly Asp Leu Glu Gly Cys Val His Tyr
      930              935              940
Lys Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala Leu Lys
945              950              955              960
Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His Lys Phe
      965              970              975
Met Ala Phe Lys Ser Phe Gly Glu Leu Val His Lys Pro Leu Leu Val
      980              985              990
Asp Leu Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile Tyr Gly Ser
      995              1000              1005
Cys Ala Gly Phe His Ala Val Asp Val Asp Ser Gly Ser Val Tyr Asp
      1010              1015              1020
Ile Tyr Leu Pro Thr His Val Arg Lys Asn Pro His Ser Met Ile Gln
1025              1030              1035              1040
Cys Ser Ile Lys Pro His Ala Ile Ile Ile Leu Pro Asn Thr Asp Gly
      1045              1050              1055
Met Glu Leu Leu Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr
      1060              1065              1070
Tyr Gly Arg Ile Thr Lys Asp Val Val Leu Gln Trp Gly Glu Met Pro
      1075              1080              1085
Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly Glu
      1090              1095              1100
Lys Ala Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu Asp Gly Val
1105              1110              1115              1120
Phe Met His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys Glu Arg Asn
      1125              1130              1135
Asp Lys Val Phe Phe Ala Ser Val Arg Ser Gly Gly Ser Ser Gln Val
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Tyr Phe Met Thr Leu Gly Arg Thr Ser Leu Leu Ser Trp
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<210> 5561

<211> 2089

<212> DNA

<213> Homo sapiens

<400> 5561
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<210> 5562

<211> 372

<212> PRT

<213> Homo sapiens

<400> 5562

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		20						25					30		
Asp	Ser	Asn	Met	Lys	Arg	Glu	Gln	Pro	Arg	Glu	Arg	Pro	Arg	Ala	Trp
		35					40					45			
Asp	Tyr	Pro	His	Gly	Leu	Val	Gly	Leu	His	Asn	Ile	Gly	Gln	Thr	Cys
	50					55					60				
Cys	Leu	Asn	Ser	Leu	Ile	Gln	Val	Phe	Val	Met	Asn	Val	Asp	Phe	Thr
65					70					75				80	
Arg	Ile	Leu	Lys	Arg	Ile	Thr	Val	Pro	Arg	Gly	Ala	Asp	Glu	Gln	Arg
			85					90						95	
Arg	Ser	Val	Pro	Phe	Gln	Met	Leu	Leu	Leu	Glu	Lys	Met	Gln	Asp	
		100						105					110		
Ser	Arg	Gln	Lys	Ala	Val	Arg	Pro	Leu	Glu	Leu	Ala	Tyr	Cys	Leu	Gln
		115					120					125			
Lys	Cys	Asn	Val	Pro	Leu	Phe	Val	Gln	His	Asp	Ala	Ala	Gln	Leu	Tyr
	130					135					140				
Leu	Lys	Leu	Trp	Asn	Leu	Ile	Lys	Asp	Gln	Ile	Thr	Asp	Val	His	Leu
145				150					155					160	
Val	Glu	Arg	Leu	Gln	Ala	Leu	Tyr	Thr	Ile	Arg	Val	Lys	Asp	Ser	Leu
			165					170						175	
Ile	Cys	Val	Asp	Cys	Ala	Met	Glu	Ser	Ser	Arg	Asn	Ser	Ser	Met	Leu
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Thr	Leu	Pro	Leu	Ser	Leu	Phe	Asp	Val	Asp	Ser	Lys	Pro	Leu	Lys	Thr
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Leu	Glu	Asp	Ala	Leu	His	Cys	Phe	Phe	Gln	Pro	Arg	Glu	Leu	Ser	Ser
	210					215					220				
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225          230          235          240
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          260          265          270
Leu Tyr Phe Pro Gln Ser Leu Asp Phe Ser Gln Ile Leu Pro Met Lys
          275          280          285
Arg Glu Ser Cys Asp Ala Glu Glu Ser Gly Gly Gln Tyr Glu Leu
          290          295          300
Phe Ala Val Ile Ala His Val Gly Met Ala Asp Ser Gly His Tyr Cys
305          310          315          320
Val Tyr Ile Arg Asn Ala Val Asp Gly Lys Trp Phe Cys Phe Asn Asp
          325          330          335
Ser Asn Ile Cys Leu Val Ser Trp Glu Asp Ile Gln Cys Thr Tyr Gly
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Lys Met Glu Cys
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<210> 5563

<211> 2878

<212> DNA

<213> Homo sapiens

<400> 5563

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<210> 5564

<211> 683

<212> PRT

<213> Homo sapiens

<400> 5564

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		20					25					30			
Ser	Ala	Glu	Arg	Ala	Leu	Glu	Glu	Ala	Val	Ala	Thr	Gly	Thr	Leu	Asn
		35				40					45				
Leu	Ser	Asn	Arg	Arg	Leu	Lys	His	Phe	Pro	Arg	Gly	Ala	Ala	Arg	Ser
	50					55				60					
Tyr	Asp	Leu	Ser	Asp	Ile	Thr	Gln	Ala	Asp	Leu	Ser	Arg	Asn	Arg	Phe
65				70				75					80		
Pro	Glu	Val	Pro	Glu	Ala	Ala	Cys	Gln	Leu	Val	Ser	Leu	Glu	Gly	Leu
			85					90					95		
Ser	Leu	Tyr	His	Asn	Cys	Leu	Arg	Cys	Leu	Asn	Pro	Ala	Leu	Gly	Asn
			100				105					110			
Leu	Thr	Ala	Leu	Thr	Tyr	Leu	Asn	Leu	Ser	Arg	Asn	Gln	Leu	Ser	Leu
	115					120					125				
Leu	Pro	Pro	Tyr	Ile	Cys	Gln	Leu	Pro	Leu	Arg	Val	Leu	Ile	Val	Ser
	130					135				140					
Asn	Asn	Lys	Leu	Gly	Ala	Leu	Pro	Pro	Asp	Ile	Gly	Thr	Leu	Gly	Ser
145				150					155					160	
Leu	Arg	Gln	Leu	Asp	Val	Ser	Ser	Asn	Glu	Leu	Gln	Ser	Leu	Pro	Ser
			165					170					175		
Glu	Leu	Cys	Gly	Leu	Ser	Ser	Leu	Arg	Asp	Leu	Asn	Val	Arg	Arg	Asn
			180					185				190			
Gln	Leu	Ser	Thr	Leu	Pro	Glu	Glu	Leu	Gly	Asp	Leu	Pro	Leu	Val	Arg
	195					200					205				
Leu	Asp	Phe	Ser	Cys	Asn	Arg	Val	Ser	Arg	Ile	Pro	Val	Ser	Phe	Cys
	210				215						220				
Arg	Leu	Arg	His	Leu	Gln	Val	Ile	Leu	Leu	Asp	Ser	Asn	Pro	Leu	Gln
225				230						235				240	
Ser	Pro	Pro	Ala	Gln	Val	Cys	Leu	Lys	Gly	Lys	Leu	His	Ile	Phe	Lys
			245					250					255		
Tyr	Leu	Ser	Thr	Glu	Ala	Gly	Gln	Arg	Gly	Ser	Ala	Leu	Gly	Asp	Leu

4751

<210> 5565
 <211> 472
 <212> DNA
 <213> Homo sapiens

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<210> 5566
 <211> 76
 <212> PRT
 <213> Homo sapiens

<400> 5566
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 20 25 30
 Leu Pro Pro Arg Leu Glu Ser Gly Gly Ala Ile Thr Ala His Ser Ser
 35 40 45
 Leu Asp Leu Gln Gly Ser Ser Asp Pro Pro Ala Ser Ala Ser Arg Ala
 50 55 60
 Ala Gly Ser Thr Gly Ala Tyr His Ala Trp Leu Phe
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<210> 5567
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 5567
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 120
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 gaccggtttg ctagcccctg ggcttaagag atctgtccac ttactcctca acatgcagag
 240

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420      ctgggtactg  tgcaagatcc  ttccttgggg  cactgaagga  aaatcagaca  cggcccttct
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<210> 5568
<211> 130
<212> PRT
<213> Homo sapiens
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      20              25              30
His Arg Ser Ile His Leu Ala Pro Leu Gln Ile Trp Val Leu Cys Lys
      35              40              45
Ile Leu Pro Trp Asp Thr Glu Gly Lys Ser Asp Thr Ala Leu Leu Ser
      50              55              60
Ser Ser Gln Thr Leu Arg Tyr Pro Asp Thr Thr Ala Leu Ile Val Ser
65              70              75              80
Glu Asn Thr Ala Thr Ser Ala Gly Lys Tyr Gln Arg Cys Phe Thr Arg
      85              90              95
Tyr Met Tyr Gln Ile Leu Lys Ala Ala Val Pro Lys Tyr His Lys Leu
      100             105             110
His Gly Leu Lys Gln Gln Lys Phe Ile Pro Ser Gln Ser Trp Arg Pro
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Asp Val
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<210> 5569
<211> 876

<212> DNA

<213> Homo sapiens

<400> 5569

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<210> 5570

<211> 169

<212> PRT

<213> Homo sapiens

<400> 5570

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20           25           30
Gly Ser Pro Leu Val Val Ile Ser Gln Gly Lys Ile Val Phe Glu Asp
35           40           45
Gly Asn Ile Asn Val Asn Lys Gly Met Gly Arg Phe Ile Pro Arg Lys
50           55           60
Ala Phe Pro Glu His Ser Ser Thr Trp Leu Glu Leu His Asn His Gly
65           70           75           80
Arg Arg His Val Cys Glu Ala Ser Trp Gly Cys Thr Ala Asp Pro Leu
85           90           95
Leu Ser Pro Leu Ala Leu Ser Ala Ala Phe Met Trp Leu Ser Pro Ser

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          100          105          110
Val Leu Gln Ala Phe Ile Ser Phe Arg Ala Ala Pro Ser Leu Cys Pro
          115          120          125
Gly Thr Leu Ala Lys Met Gln Cys Leu Pro Asn Ser His Ile Ser Phe
          130          135          140
Asn Gln Gly Ala Ile Pro Ala Trp Lys Ser Pro Ser Cys Ser Cys Trp
145          150          155          160
Gln Val Gln Val Pro Val Cys Asp Gly
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<210> 5571
 <211> 405
 <212> DNA
 <213> Homo sapiens

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<400> 5571
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300
aacgtggatg ggaaggccta ccgcaccatg atggcccaga tcttctcgca gcgcctcgct
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405

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<210> 5572
 <211> 135
 <212> PRT
 <213> Homo sapiens

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<400> 5572
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Ser Tyr His Pro Met Val Thr Ala Ser Glu Arg Ile Phe Val Leu Asn
20     25     30
Gln Leu Arg Asp Pro Thr Ser Pro Lys Phe Pro Glu Asp Phe Asp Asp
35     40     45
Gly Glu His Ala Lys Gln Lys Ser Val Ile Ser Trp Leu Leu Asn His
50     55     60
Asp Pro Ala Lys Arg Pro Thr Ala Thr Glu Leu Leu Lys Ser Glu Leu
65     70     75     80
Leu Pro Pro Pro Gln Met Glu Glu Ser Glu Leu His Glu Val Leu His
85     90     95
His Thr Leu Thr Asn Val Asp Gly Lys Ala Tyr Arg Thr Met Met Ala
100    105    110
Gln Ile Phe Ser Gln Arg Leu Ala Gly Ala Gly Gly Gly Gly Tyr Arg
115    120    125
Ser Arg Leu Gly Val Pro Arg

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130

135

<210> 5573

<211> 1279

<212> DNA

<213> Homo sapiens

<400> 5573

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120
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420
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720
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<210> 5574

<211> 312
 <212> PRT
 <213> Homo sapiens

<400> 5574

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      20           25           30
Ala Glu Ile Glu Glu Ala Leu Gln Ala Gly Leu Ala Pro Leu Gly Glu
      35           40           45
Tyr Arg Leu Leu Gly Arg Met Phe Arg Arg Asp Glu Asn Arg Lys Val
      50           55           60
Ala Leu Val Gly Leu Thr Ala Glu Thr Ser His Ala Leu Val Pro Lys
      65           70           75           80
Glu Ile Pro Gly Lys Gly Gly Ile Trp Arg Val Ile Phe Lys Pro Pro
      85           90           95
Asp Pro Asp Asn Thr Phe Leu Ser Arg Leu Asn Glu Phe Leu Ala Gly
      100          105          110
Glu Gly Met Thr Val Gly Glu Leu Ser Arg Ala Leu Gly His Glu Asn
      115          120          125
Gly Ser Leu Asp Pro Glu Gln Gly Met Ile Pro Glu Met Trp Ala Pro
      130          135          140
Met Leu Ala Gln Ala Leu Glu Ala Leu Gln Pro Ala Leu Gln Cys Leu
      145          150          155          160
Lys Tyr Lys Lys Leu Arg Val Phe Ser Gly Arg Glu Ser Pro Glu Pro
      165          170          175
Gly Glu Glu Glu Phe Gly Arg Trp Met Phe His Thr Thr Gln Met Ile
      180          185          190
Lys Ala Trp Gln Val Pro Asp Val Glu Lys Arg Arg Arg Leu Leu Glu
      195          200          205
Ser Leu Arg Gly Pro Ala Leu Asp Val Ile Arg Val Leu Lys Ile Asn
      210          215          220
Asn Pro Leu Ile Thr Val Asp Glu Cys Leu Gln Ala Leu Glu Glu Val
      225          230          235          240
Phe Gly Val Thr Asp Asn Pro Arg Glu Leu Gln Val Lys Tyr Leu Thr
      245          250          255
Thr Tyr Gln Lys Asp Glu Glu Lys Leu Ser Ala Tyr Val Leu Arg Leu
      260          265          270
Glu Pro Leu Leu Gln Lys Leu Val Gln Arg Gly Ala Ile Glu Arg Asp
      275          280          285
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305          310

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<210> 5575
 <211> 2405
 <212> DNA
 <213> Homo sapiens

<400> 5575

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<210> 5576

<211> 367

<212> PRT

<213> Homo sapiens

<400> 5576

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Gln	Ala	Leu	Thr	Gly	Asn	Glu	Gly	Arg	Val	Ser	Val	Glu	Asn	Ile	Lys
		35					40					45			
Gln	Leu	Leu	Gln	Cys	Leu	Val	Pro	Gly	Ser	Thr	Thr	Leu	His	Ser	Ala
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Glu	Ile	Leu	Ala	Glu	Ile	Ala	Arg	Ile	Leu	Arg	Pro	Gly	Gly	Cys	Leu
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Phe	Leu	Lys	Glu	Pro	Val	Glu	Thr	Ala	Val	Asp	Asn	Asn	Ser	Lys	Val
			85					90					95		
Lys	Thr	Ala	Ser	Lys	Leu	Cys	Ser	Ala	Leu	Thr	Leu	Ser	Gly	Leu	Val
		100						105					110		
Glu	Val	Lys	Glu	Leu	Gln	Arg	Glu	Pro	Leu	Thr	Pro	Glu	Glu	Val	Gln
		115					120					125			
Ser	Val	Arg	Glu	His	Leu	Gly	His	Glu	Ser	Asp	Asn	Leu	Leu	Phe	Val
	130					135					140				
Gln	Ile	Thr	Gly	Lys	Lys	Pro	Asn	Phe	Glu	Val	Gly	Ser	Ser	Arg	Gln
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Leu	Lys	Leu	Ser	Ile	Thr	Lys	Lys	Ser	Ser	Pro	Ser	Val	Lys	Pro	Ala

				165				170					175			
Val	Asp	Pro	Ala	Ala	Ala	Lys	Leu	Trp	Thr	Leu	Ser	Ala	Asn	Asp	Met	
				180				185					190			
Glu	Asp	Asp	Ser	Met	Cys	Ile	Phe	Cys	Gly	Cys	Ser	Leu	Thr	His	Arg	
				195			200					205				
Trp	Pro	Leu	Glu	His	Val	Val	Arg	Leu	Asn	Met	Met	Ile	Asn	Gln	Lys	
				210			215					220				
Glu	Asp	Arg	Val	Asp	Thr	Phe	Phe	Thr	Leu	Asp	Ser	Lys	Phe	Pro	Leu	
225					230					235					240	
Glu	Ala	Cys	Ser	His	Phe	Ser	Phe	Ser	Leu	Ala	Glu	Thr	Thr	Thr	Val	
				245					250						255	
Ser	Leu	Ile	Ala	Leu	Asn	Thr	Leu	Gln	Asp	Leu	Ile	Asp	Ser	Asp	Glu	
			260					265				270				
Leu	Leu	Asp	Pro	Glu	Asp	Leu	Lys	Lys	Pro	Asp	Pro	Ala	Ser	Leu	Arg	
			275				280					285				
Ala	Ala	Ser	Cys	Gly	Glu	Gly	Lys	Lys	Arg	Lys	Ala	Cys	Lys	Asn	Cys	
			290			295					300					
Thr	Cys	Gly	Leu	Ala	Glu	Glu	Leu	Glu	Lys	Glu	Lys	Ser	Arg	Glu	Gln	
305					310					315					320	
Met	Ser	Ser	Gln	Pro	Lys	Ser	Ala	Cys	Gly	Asn	Cys	Tyr	Leu	Gly	Asp	
				325					330						335	
Ala	Phe	Arg	Cys	Ala	Ser	Cys	Pro	Tyr	Leu	Gly	Met	Pro	Ala	Phe	Lys	
			340					345					350			
Pro	Gly	Glu	Lys	Val	Leu	Leu	Ser	Asp	Ser	Asn	Leu	His	Asp	Ala		
			355				360					365				

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<211> 659

<212> DNA

<213> Homo sapiens

<400> 5577

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180	ggctccggga	agcagaacaa	ggacctctat	gagttggcct	tctcaatcag
240	ggggaggagg	aagcgtacct	caacttcatt	gccccctcca	agcgggagtt
300	acagatgggc	tcagtgcctt	gctgggcagt	cccatgggca	gcgagcagac
360	ctggagcagc	tgctgaccat	ggagaccaag	ctgcgtctgc	tggagctgga
420	atccccgagc	ggccaccccc	tgtgccccca	ccccccacca	acttcaactt
480	tgacgcatcg	ctgaaccttg	acagtgtggc	tggccatggg	ccacagctgc
540	gcagccatga	agggcagtg	gtagaggagt	gcaggcaccc	tgaccagcag
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659					

<210> 5578
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 5578
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 35 40 45
 Leu Thr Gly Lys Asp Cys Pro His Val Arg Glu Lys Gly Ser Gly Lys
 50 55 60
 Gln Asn Lys Asp Leu Tyr Glu Leu Ala Phe Ser Ile Ser Tyr Asp Arg
 65 70 75 80
 Gly Glu Glu Glu Ala Tyr Leu Asn Phe Ile Ala Pro Ser Lys Arg Glu
 85 90 95
 Phe Tyr Leu Trp Thr Asp Gly Leu Ser Ala Leu Leu Gly Ser Pro Met
 100 105 110
 Gly Ser Glu Gln Thr Arg Leu Asp Leu Glu Gln Leu Leu Thr Met Glu
 115 120 125
 Thr Lys Leu Arg Leu Leu Glu Leu Glu Asn Val Pro Ile Pro Glu Arg
 130 135 140
 Pro Pro Pro Val Pro Pro Pro Thr Asn Phe Asn Phe Cys Tyr Asp
 145 150 155 160
 Cys Ser Ile Ala Glu Pro
 165

<210> 5579
 <211> 1312
 <212> DNA
 <213> Homo sapiens

<400> 5579
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 420
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<210> 5580

<211> 283

<212> PRT

<213> Homo sapiens

<400> 5580

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Gln	Pro	Ile	Gln	Pro	Ala	Pro	Pro	Leu	Gln	Pro	Ser	Gly	Val	Pro	Thr
			20					25					30		
Ser	Gly	Pro	Ser	Gln	Thr	Thr	Ile	His	Leu	Leu	Pro	Thr	Ala	Pro	Thr
			35				40					45			
Thr	Val	Asn	Val	Thr	His	Arg	Pro	Val	Thr	Gln	Val	Thr	Thr	Arg	Leu
			50			55					60				
Pro	Val	Pro	Arg	Ala	Pro	Ala	Asn	His	Gln	Val	Val	Tyr	Thr	Thr	Leu
65					70					75					80
Pro	Ala	Pro	Pro	Ala	Gln	Ala	Pro	Leu	Arg	Gly	Thr	Val	Met	Gln	Ala
				85					90					95	
Pro	Ala	Val	Arg	Gln	Val	Asn	Pro	Gln	Asn	Ser	Val	Thr	Val	Arg	Val
			100				105						110		
Pro	Gln	Thr	Thr	Thr	Tyr	Val	Val	Asn	Asn	Gly	Leu	Thr	Leu	Gly	Ser
		115					120					125			
Thr	Gly	Pro	Gln	Leu	Thr	Val	His	His	Arg	Pro	Pro	Gln	Val	His	Thr
					130		135					140			
Glu	Pro	Pro	Arg	Pro	Val	His	Pro	Ala	Pro	Leu	Pro	Glu	Ala	Pro	Gln
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<212> DNA
<213> Homo sapiens
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600

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1560
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1620
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1680
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1800
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1980
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2101

<210> 5584

<211> 454

<212> PRT

<213> Homo sapiens

<400> 5584

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Xaa Gly Arg Asp Cys Val Leu Leu Gln Glu Asp Phe Leu Ala His Arg
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Gly Arg Pro His Val Tyr Leu Gln Arg Ile Gln Leu Asn Asn Pro Thr
 20           25           30
Glu Arg Val Ala Ala Leu Gln Thr Val Gly Pro Thr Ala Gly Pro Ala
 35           40           45
Pro Asn Ala Phe Thr Ser Thr Leu Glu Lys Val Gly Asp His Gln Phe
 50           55           60
Leu Leu Tyr Ser Gly Arg Ser Pro Pro Thr Pro Thr Gly Leu Val His
 65           70           75           80
Leu Val Val Val Ala Lys Lys Leu Val Asn Arg Leu Gln Val Ala
 85           90           95
Pro Lys Thr Gln Leu Asp Glu Thr Val Leu Trp Val Val His Val Ser
100           105           110
Gly Pro Ile Asn Pro Gln Val Leu Lys Ser Lys Ala Ala Lys Glu Leu
115           120           125
Lys Ala Leu Gln Asp Leu Ala Arg Lys Glu Met Leu Glu Leu Leu Asp
130           135           140
Met Pro Ala Ala Glu Leu Leu Gln Asp His Gln Leu Leu Trp Ala Gln
145           150           155           160
Leu Phe Ser Pro Gly Val Glu Met Lys Lys Ile Thr Asp Thr His Thr
165           170           175
Pro Ser Gly Leu Thr Val Asn Leu Thr Leu Tyr Tyr Met Leu Ser Cys
180           185           190
Ser Pro Ala Pro Leu Leu Ser Pro Ser Leu Ser His Arg Glu Arg Asp
195           200           205
Gln Met Glu Ser Thr Leu Asn Tyr Glu Asp His Cys Phe Ser Gly His
210           215           220
Ala Thr Met His Ala Glu Asn Leu Trp Pro Gly Arg Leu Ser Ser Val
225           230           235           240
Gln Gln Ile Leu Gln Leu Ser Asp Leu Trp Arg Leu Thr Leu Gln Lys
245           250           255
Arg Gly Cys Lys Gly Leu Val Lys Val Gly Ala Pro Gly Ile Leu Gln
260           265           270
Gly Met Val Leu Ser Phe Gly Gly Leu Gln Phe Thr Glu Asn His Leu
275           280           285
Gln Phe Gln Ala Asp Pro Asp Val Leu His Asn Ser Tyr Ala Leu His
290           295           300
Gly Ile Arg Tyr Lys Asn Asp His Ile Asn Leu Ala Val Leu Arg Met
305           310           315           320
Pro Arg Ala Ser Pro Thr Tyr Thr Cys Pro Trp Ser Pro Val Ala Ser
325           330           335
Leu Ser Xaa Ile Tyr Ala Cys Lys Ala Gly Cys Leu Asp Glu Pro Val
340           345           350
Glu Leu Thr Ser Ala Pro Thr Gly His Thr Phe Ser Val Met Val Thr
355           360           365
Gln Pro Ile Thr Pro Leu Leu Tyr Ile Ser Thr Asp Leu Thr His Leu
370           375           380
Gln Asp Leu Arg His Thr Leu His Leu Lys Ala Ile Leu Ala His Asp

```

```

385          390          395          400
Glu His Met Ala Gln Gln Asp Pro Gly Leu Pro Phe Leu Phe Trp Phe
          405          410          415
Ser Val Ala Ser Leu Ile Thr Leu Phe His Leu Phe Leu Phe Lys Leu
          420          425          430
Ile Tyr Asn Glu Tyr Cys Gly Pro Gly Ala Lys Pro Leu Phe Arg Ser
          435          440          445
Lys Glu Asp Pro Ser Val
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<210> 5585
<211> 740
<212> DNA
<213> Homo sapiens

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<400> 5585
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120
ctcacaagaa taaaatatac aatgctacat tgagtgggta aaaatacaca aaaaagtagt
180
tttaacaatc tataaatatt ttatacttaa aatcatgatt gagttgaaat aaaaaagtgc
240
atttcaattg ctaaaaaaat aatatcggtg tagttaacac aagggggaaa tcagtacatt
300
gagggatctg acaggatgct ggaaaaaatg actcagggaa gccgggcagc atgggctcct
360
ttggagattc aggagcggag ctcagttcca cctcactgca gttccctggg gccaaagcagc
420
cctcctctcc ccagtatctt tcccatctta agagatcctg tctacctac ctgtcacctc
480
cccaacccaa agactcctct aaacttcttt gcagcatgac agctgcctgc cctacactga
540
gtctacttga ctttcaattg cgtctccgca gagaggtagg agagggacac tgccccattc
600
tggaacttgac ataagtaccc cagccacatg gccttcatcc ttatgaccta gcaggcagaa
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cagggaccaa gcagcttcta ttttgtcaaa ctcttttgga caaatattca acattcaaca
720
acaagctttg taaacctaac
740

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<210> 5586
<211> 87
<212> PRT
<213> Homo sapiens

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<400> 5586
Met Gly Ser Phe Gly Asp Ser Gly Ala Glu Leu Ser Ser Thr Ser Leu
1          5          10          15
Gln Phe Pro Gly Ala Lys Gln Pro Ser Ser Pro Gln Tyr Leu Ser His
          20          25          30
Leu Lys Arg Ser Cys Pro Thr Tyr Leu Ser Pro Pro Gln Pro Lys Asp

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[illegible]

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<210> 5587
<211> 853
<212> DNA
<213> Homo sapiens
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<400> 5587
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120
ttcattgttt tctcaatttg cttcagaaaa acttgcgggga ttcgtccaca taaagtgtgc
180
acagctctcca aaaacttcag ctgaaggggg taatacatgg attgaaagag attgtcttga
240
aaggggaaaat cccgtattgc ttcatagagt gctctgaacg ttggttgctt atcgtcatgg
300
tagacgcttc ggtttccatg cagaacagac acaccttcac gctcagcctc tctgcagttg
360
cttcctgata tgcagtgatc gggacggtag ttccactggc aggggaatac atagagacac
420
tctgggttga aataaaaaat aatatttaat aaatcctggg tccccacgt gatggcattc
480
ttgtacttct ggtacagagg gtacaacatg tcctcccaag ccaggcctgt tggaatcatg
540
ctgttcttga actgggtact tcttatccga gttaaattca ttaacatgac tcctgaatta
600
actcctgcag agccatagaa aggatgccta gcaaagcggc tgtaccagcc aatcttgggg
660
atttcgtgct caggggccat ggctgcaagc tgggtggaat taaacagcct cagaagcttc
720
cagatgtcat caacaggtct cagaaagagg acatcgggtg ccacgtagag aagtgagtcc
780
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840
ttccactcct gag
853

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<210> 5588
<211> 204
<212> PRT
<213> Homo sapiens
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<400> 5588
Met Ala Pro Glu His Glu Ile Pro Lys Ile Gly Trp Tyr Ser Arg Phe
1 5 10 15
Ala Arg His Pro Phe Tyr Gly Ser Ala Gly Val Asn Ser Gly Val Met

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                20                25                30
Leu Met Asn Leu Thr Arg Ile Arg Ser Thr Gln Phe Lys Asn Ser Met
          35          40          45
Ile Pro Thr Gly Leu Ala Trp Glu Asp Met Leu Tyr Pro Leu Tyr Gln
          50          55          60
Lys Tyr Lys Asn Ala Ile Thr Trp Gly Asp Gln Asp Leu Leu Asn Ile
65          70          75          80
Ile Phe Tyr Phe Asn Pro Glu Cys Leu Tyr Val Phe Pro Cys Gln Trp
          85          90          95
Asn Tyr Arg Pro Asp His Cys Met Tyr Gly Ser Asn Cys Arg Glu Ala
          100          105          110
Glu His Glu Gly Val Ser Val Leu His Gly Asn Arg Gly Val Tyr His
          115          120          125
Asp Asp Lys Gln Pro Thr Phe Arg Ala Leu Tyr Glu Ala Ile Arg Asp
          130          135          140
Phe Pro Phe Gln Asp Asn Leu Phe Gln Ser Met Tyr Tyr Pro Leu Gln
145          150          155          160
Leu Lys Phe Leu Glu Thr Val His Thr Leu Cys Gly Arg Ile Pro Gln
          165          170          175
Val Phe Leu Lys Gln Ile Glu Lys Thr Met Lys Arg Ala Tyr Glu Lys
          180          185          190
His Val Ile Ile His Val Gly Pro Asn Gln Met His
          195          200

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<210> 5589

<211> 1327

<212> DNA

<213> Homo sapiens

<400> 5589

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120
gataacttca ccaagatgtc cagtgatagg caaagggtccg atgatgagag cccagcacc
180
agcagtggca gttcagatgc ggaccagcga gaccagccg ctccagagcc tgaagaaca
240
gaggaaagaa aaccttctgc caccagcag aagaaaaaca ccaaactctc tagcaaaacc
300
actgctaagt tatccactag tgctaaaaga attcagaagg agctagctga aataaccctt
360
gatcctctc ctaattgcag tgctgggcct aaaggagata acatttatga atggagatca
420
actatacttg gtccaccggg ttctgtatat gaagggtggtg tgttttttct ggatatcaca
480
ttttcatcag attatccatt taagccacca aaggttactt tccgcaccag aatctatcac
540
tgcaacatca acagtcaggg agtcatctgt ctggacatcc ttaaagacaa ctggagtccc
600
gctttgacta tttcaaagggt tttgtgtctc atttgttccc ttttgacaga ctgcaacctt
660
gcggatcctc tggttggaag catagccact cagtatttga ccaacagagc agaacacgac
720

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aggatagcca gacagtggac caagagatac gcaacataat tcacataatt tgtatgcagt
 780
 gtgaaggagc agaaggcatc ttctcactgt gctgcaaadc tttatagcct ttacaatacg
 840
 gacttctgtg tatatgttat actgattcta ctctgctttt atcctttgga gcctgggaga
 900
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 960
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 1020
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 1080
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 1140
 cagatctatt tctgagtatg tggttcatgc tgttgtgaaa aatgttttac cttttacctt
 1200
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 1320
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 1327

<210> 5590

<211> 207

<212> PRT

<213> Homo sapiens

<400> 5590

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			20					25					30		
Glu	Glu	Gln	Glu	Glu	Arg	Lys	Pro	Ser	Ala	Thr	Gln	Gln	Lys	Lys	Asn
			35				40						45		
Thr	Lys	Leu	Ser	Ser	Lys	Thr	Thr	Ala	Lys	Leu	Ser	Thr	Ser	Ala	Lys
			50				55					60			
Arg	Ile	Gln	Lys	Glu	Leu	Ala	Glu	Ile	Thr	Leu	Asp	Pro	Pro	Pro	Asn
65					70					75					80
Cys	Ser	Ala	Gly	Pro	Lys	Gly	Asp	Asn	Ile	Tyr	Glu	Trp	Arg	Ser	Thr
				85					90					95	
Ile	Leu	Gly	Pro	Pro	Gly	Ser	Val	Tyr	Glu	Gly	Gly	Val	Phe	Phe	Leu
			100					105					110		
Asp	Ile	Thr	Phe	Ser	Ser	Asp	Tyr	Pro	Phe	Lys	Pro	Pro	Lys	Val	Thr
			115				120						125		
Phe	Arg	Thr	Arg	Ile	Tyr	His	Cys	Asn	Ile	Asn	Ser	Gln	Gly	Val	Ile
			130				135					140			
Cys	Leu	Asp	Ile	Leu	Lys	Asp	Asn	Trp	Ser	Pro	Ala	Leu	Thr	Ile	Ser
145					150					155					160
Lys	Val	Leu	Leu	Ser	Ile	Cys	Ser	Leu	Leu	Thr	Asp	Cys	Asn	Pro	Ala
				165					170					175	
Asp	Pro	Leu	Val	Gly	Ser	Ile	Ala	Thr	Gln	Tyr	Leu	Thr	Asn	Arg	Ala
			180					185					190		
Glu	His	Asp	Arg	Ile	Ala	Arg	Gln	Trp	Thr	Lys	Arg	Tyr	Ala	Thr	

195 200 205

<210> 5591
<211> 2194
<212> DNA
<213> Homo sapiens

<400> 5591
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120
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180
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240
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300
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420
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480
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540
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600
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660
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840
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1020
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1380

acaccagatc ctaaccatgg cttctatgtc agcccatctg tcctcagcgc ctttgtgccc
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 1980
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 2194

<210> 5592

<211> 580

<212> PRT

<213> Homo sapiens

<400> 5592

Met	Pro	Ser	Gly	Ser	Ala	Arg	Pro	Val	Ala	Pro	Gly	Ala	Arg	Arg	Leu
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Val	Pro	Cys	Arg	Thr	Pro	Thr	Arg	Gln	Leu	Arg	Glu	Glu	Leu	Val	Ile
			20					25					30		
Thr	Pro	Leu	Pro	Ser	Gly	Asp	Val	Ala	Ala	Thr	Phe	Gln	Phe	Arg	Thr
			35				40					45			
Arg	Trp	Asp	Ser	Asp	Leu	Gln	Arg	Glu	Gly	Val	Ser	His	Tyr	Arg	Leu
	50					55				60					
Phe	Pro	Lys	Ala	Leu	Gly	Gln	Leu	Ile	Ser	Lys	Tyr	Ser	Leu	Arg	Glu
65					70				75				80		
Leu	His	Leu	Ser	Phe	Thr	Gln	Gly	Phe	Trp	Arg	Thr	Arg	Tyr	Trp	Gly
			85				90						95	Pro	Phe
Gln	Ala	Pro	Ser	Gly	Ala	Glu	Leu	Trp	Val	Trp	Phe				
			100				105					110			
Gln	Asp	Thr	Val	Thr	Asp	Val	Asp	Lys	Ser	Trp	Arg	Glu	Leu	Ser	Asn
			115				120					125			
Val	Leu	Ser	Gly	Ile	Phe	Cys	Ala	Ser	Leu	Asn	Phe	Ile	Asp	Ser	Thr
			130				135					140			
Asn	Thr	Val	Thr	Pro	Thr	Ala	Ser	Phe	Lys	Pro	Leu	Gly	Leu	Ala	Asn

```

145          150          155          160
Asp Thr Asp His Tyr Phe Leu Arg Tyr Ala Val Leu Pro Arg Glu Val
          165          170          175
Val Cys Thr Glu Asn Leu Thr Pro Trp Lys Lys Leu Leu Pro Cys Ser
          180          185          190
Ser Lys Ala Gly Leu Ser Val Leu Leu Lys Ala Asp Arg Leu Phe His
          195          200          205
Thr Ser Tyr His Ser Gln Ala Val His Ile Arg Pro Val Cys Arg Asn
          210          215          220
Ala Arg Cys Thr Ser Ile Ser Trp Glu Leu Arg Gln Thr Leu Ser Val
225          230          235          240
Val Phe Asp Ala Phe Ile Thr Gly Gln Gly Lys Lys Asp Trp Ser Leu
          245          250          255
Phe Arg Met Phe Ser Arg Thr Leu Thr Glu Pro Cys Pro Leu Ala Ser
          260          265          270
Glu Ser Arg Val Tyr Val Asp Ile Thr Thr Tyr Asn Gln Pro Cys Leu
          275          280          285
Cys Val Gln Asp Asn Glu Thr Leu Glu Val His Pro Pro Pro Thr Thr
          290          295          300
Thr Tyr Gln Asp Val Ile Leu Gly Thr Arg Lys Thr Tyr Ala Ile Tyr
305          310          315          320
Asp Leu Leu Asp Thr Ala Met Ile Asn Asn Ser Arg Asn Leu Asn Ile
          325          330          335
Gln Leu Lys Trp Lys Arg Pro Pro Glu Asn Glu Ala Pro Pro Val Pro
          340          345          350
Phe Leu His Ala Gln Arg Tyr Val Ser Gly Tyr Gly Leu Gln Lys Gly
          355          360          365
Glu Leu Ser Thr Leu Leu Tyr Asn Thr His Pro Tyr Arg Ala Phe Pro
          370          375          380
Val Leu Leu Leu Asp Thr Val Pro Trp Tyr Leu Arg Leu Tyr Val His
385          390          395          400
Thr Leu Thr Ile Thr Ser Lys Gly Lys Glu Asn Lys Pro Ser Tyr Ile
          405          410          415
His Tyr Gln Pro Ala Gln Asp Arg Leu Gln Pro His Leu Leu Glu Met
          420          425          430
Leu Ile Gln Leu Pro Ala Asn Ser Val Thr Lys Val Ser Ile Gln Phe
          435          440          445
Glu Arg Ala Leu Leu Lys Trp Thr Glu Tyr Thr Pro Asp Pro Asn His
          450          455          460
Gly Phe Tyr Val Ser Pro Ser Val Leu Ser Ala Leu Val Pro Ser Met
465          470          475          480
Val Ala Ala Lys Pro Val Asp Trp Glu Glu Ser Pro Leu Phe Asn Ser
          485          490          495
Leu Phe Pro Val Ser Asp Gly Ser Asn Tyr Phe Val Arg Leu Tyr Thr
          500          505          510
Glu Pro Leu Leu Val Asn Leu Pro Thr Pro Asp Phe Ser Met Pro Tyr
          515          520          525
Asn Val Ile Cys Leu Thr Cys Thr Val Val Ala Val Cys Tyr Gly Ser
          530          535          540
Phe Tyr Asn Leu Leu Thr Arg Thr Phe His Ile Glu Glu Pro Arg Thr
545          550          555          560
Gly Gly Leu Ala Lys Arg Leu Ala Asn Leu Ile Arg Arg Ala Arg Gly
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Val Pro Pro Leu

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580

<210> 5593
<211> 3078
<212> DNA
<213> Homo sapiens

<400> 5593
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acaacaaggc atacaactga ccaccaatg cagtgcatat taacaagggt agattttgat
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tcttctcaga gttcatattc tccaagcaat aggggaagcca tggatcctat agctgagctt
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1020
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1140
gaaaacctaa atttaaaaga gagtaataaa ggaaatgagc ctccaccacc tcctctttga
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<211> 296

<212> PRT

<213> Homo sapiens

<400> 5594

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<212> DNA

<213> Homo sapiens

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 <212> DNA
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<212> DNA

<213> Homo sapiens

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<210> 5600

<211> 923

<212> PRT

<213> Homo sapiens

<400> 5600

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 35 40 45
 Tyr Phe Pro Phe Met Asp Leu Lys Leu Arg Ala Ala Ser Pro Ile Ile
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 Thr Leu Val Ala Leu Asp Glu Ala Leu Asp Asn Tyr Thr Ile Thr Phe
 65 70 75 80
 Leu Ile Arg Gly Val Ala Ile Gly Gln Thr Ser Leu Thr Ala Ser Val
 85 90 95
 Thr Asn Lys Ala Gly Gln Arg Ile Asn Ser Ala Pro Gln Gln Ile Glu
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 Val Phe Pro Pro Phe Arg Leu Met Pro Arg Lys Val Thr Leu Leu Ile
 115 120 125
 Gly Ala Thr Met Gln Val Thr Ser Glu Gly Gly Pro Gln Pro Gln Ser
 130 135 140
 Asn Ile Leu Phe Ser Ile Ser Asn Glu Ser Val Ala Leu Val Ser Ala
 145 150 155 160
 Ala Gly Leu Val Gln Gly Leu Ala Ile Gly Asn Gly Thr Val Ser Gly
 165 170 175
 Leu Val Gln Ala Val Asp Ala Glu Thr Gly Lys Val Val Ile Ile Ser
 180 185 190
 Gln Asp Leu Val Gln Val Glu Val Leu Leu Leu Arg Ala Val Arg Ile
 195 200 205
 Arg Ala Pro Ile Met Arg Met Arg Thr Gly Thr Gln Met Pro Ile Tyr
 210 215 220
 Val Thr Gly Ile Thr Asn His Gln Asn Pro Phe Ser Phe Gly Asn Ala
 225 230 235 240
 Val Pro Gly Leu Thr Phe His Trp Ser Val Thr Lys Arg Asp Val Leu
 245 250 255
 Asp Leu Arg Gly Arg His His Glu Ala Ser Ile Arg Leu Pro Ser Gln
 260 265 270
 Tyr Asn Phe Ala Met Asn Val Leu Gly Arg Val Lys Gly Arg Thr Gly
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 Gly Leu Ala Arg Glu Leu Ser Asp Glu Ile Gln Val Gln Val Phe Glu

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305          310          315          320
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Ser Leu Ser Tyr Arg Val Leu Asp Gly Pro Glu Lys Val Pro Val Val
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His Val Asp Glu Lys Gly Phe Leu Ala Ser Gly Ser Met Ile Gly Thr
          370          375          380
Ser Thr Ile Glu Val Ile Ala Gln Glu Pro Phe Gly Ala Asn Gln Thr
385          390          395          400
Ile Ile Val Ala Val Lys Val Ser Pro Val Ser Tyr Leu Arg Val Ser
          405          410          415
Met Ser Pro Val Leu His Thr Gln Asn Lys Glu Ala Leu Val Ala Val
          420          425          430
Pro Leu Gly Met Thr Val Thr Phe Thr Val His Phe His Asp Asn Ser
          435          440          445
Gly Asp Val Phe His Ala His Ser Ser Val Leu Asn Phe Ala Thr Asn
          450          455          460
Arg Asp Asp Phe Val Gln Ile Gly Lys Gly Pro Thr Asn Asn Thr Cys
465          470          475          480
Val Val Arg Thr Val Ser Val Gly Leu Thr Leu Leu Arg Val Trp Asp
          485          490          495
Ala Glu His Pro Gly Leu Ser Asp Phe Met Pro Leu Pro Val Leu Gln
          500          505          510
Ala Ile Ser Pro Glu Leu Ser Gly Ala Met Val Val Gly Asp Val Leu
          515          520          525
Cys Leu Ala Thr Val Leu Thr Ser Leu Glu Gly Leu Ser Gly Thr Trp
530          535          540
Ser Ser Ser Ala Asn Ser Ile Leu His Ile Asp Pro Lys Thr Gly Val
545          550          555          560
Ala Val Ala Arg Ala Val Gly Ser Val Thr Val Tyr Tyr Glu Val Ala
          565          570          575
Gly His Leu Arg Thr Tyr Lys Glu Val Val Val Ser Val Pro Gln Arg
          580          585          590
Ile Met Ala Arg His Leu His Pro Ile Gln Thr Ser Phe Gln Glu Ala
          595          600          605
Thr Ala Ser Lys Val Ile Val Ala Val Gly Asp Arg Ser Ser Asn Leu
610          615          620
Arg Gly Glu Cys Thr Pro Thr Gln Arg Glu Val Ile Gln Ala Leu His
625          630          635          640
Pro Glu Thr Leu Ile Ser Cys Gln Ser Gln Phe Lys Pro Ala Val Phe
          645          650          655
Asp Phe Pro Ser Gln Asp Val Phe Thr Val Glu Pro Gln Phe Asp Thr
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Ala Leu Gly Gln Tyr Phe Cys Ser Ile Thr Met His Arg Leu Thr Asp
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Lys Gln Arg Lys His Leu Ser Met Lys Lys Thr Ala Leu Val Val Ser
690          695          700
Ala Ser Leu Ser Ser Ser His Phe Ser Thr Glu Gln Val Gly Ala Glu
705          710          715          720
Val Pro Phe Ser Pro Gly Leu Phe Ala Asp Gln Ala Glu Ile Leu Leu
          725          730          735
Ser Asn His Tyr Thr Ser Ser Glu Ile Arg Val Phe Gly Ala Pro Glu

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Val	Leu	Glu	Asn	Leu	Glu	Val	Lys	Ser	Gly	Ser	Pro	Ala	Val	Leu	Ala		
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Val	Gly	Val	Ser	Asp	Pro	Ala	Ala	Gly	Ser	Gln	Gly	Pro	Leu	Ser	Thr		
785						790						795					
Thr	Leu	Thr	Phe	Ser	Ser	Pro	Val	Thr	Asn	Gln	Ala	Ile	Ala	Ile	Pro		
805						810						815					
Val	Thr	Val	Ala	Phe	Val	Met	Asp	Arg	Gly	Pro	Gly	Pro	Tyr	Gly			
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Ala	Ser	Leu	Phe	Gln	His	Phe	Leu	Asp	Ser	Tyr	Gln	Val	Met	Phe	Phe		
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Pro	Arg	Ala	Ser	Pro	Gly	His	Ser	Pro	His	Tyr	Phe	Ala	Ala	Ser	Ser		
885						890						895					
Pro	Thr	Ser	Pro	Asn	Ala	Leu	Pro	Pro	Ala	Arg	Lys	Ala	Ser	Pro	Pro		
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<210> 5601

<211> 670

<212> DNA

<213> Homo sapiens

<400> 5601

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180	gtcattgagg	agttatcttg	tgttagatcc	aataactatg	tgcaggaacc
240	aggaatcttg	ttcagtgccct	ccttgagaag	caggggactc	ctgtggtaca
300	gagctagaga	gggtcatgag	ttccctcctg	gacatgggtt	tcagcaatgc
360	gaattgctca	gtgtacggcg	agggtgccagt	cttcaacagt	tgctggacat
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480	ttattgaaac	tgcttattat	gcaaatgagg	aagcgctcca	gttacctgca
540	cttgagagaag	ggaaattaaa	gaggggtgctt	tactgttgcc	ctgaaatttt
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670					

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<400> 5603
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360
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<210> 5604
<211> 560
<212> PRT
<213> Homo sapiens
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 370 375 380
 Tyr Thr Phe Val Cys Ile Ala Met Asp Lys Val Gly Arg Arg Thr Val
 385 390 395 400
 Leu Ala Tyr Ser Leu Phe Cys Ser Ala Leu Ala Cys Gly Val Val Met
 405 410 415
 Val Ile Pro Gln Lys His Tyr Ile Leu Gly Val Val Thr Ala Met Val
 420 425 430
 Gly Lys Phe Ala Ile Gly Ala Ala Phe Gly Leu Ile Tyr Leu Tyr Thr
 435 440 445
 Ala Glu Leu Tyr Pro Thr Ile Val Arg Ser Leu Ala Val Gly Ser Gly
 450 455 460
 Ser Met Val Cys Arg Leu Ala Ser Ile Leu Ala Pro Phe Ser Val Asp
 465 470 475 480
 Leu Ser Ser Ile Trp Ile Phe Ile Pro Gln Leu Phe Val Gly Thr Met
 485 490 495
 Ala Leu Leu Ser Gly Val Leu Thr Leu Lys Leu Pro Glu Thr Leu Gly
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 Lys Arg Leu Ala Thr Thr Trp Glu Glu Ala Ala Lys Leu Glu Ser Glu
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<210> 5605

<211> 376

<212> DNA

<213> Homo sapiens

<400> 5605

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<210> 5606

<211> 101

<212> PRT

<213> Homo sapiens

<400> 5606

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Met Thr Arg Ala Leu Leu Thr Ser Leu Val Leu Leu Pro Ala Arg Gln
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Ala His Pro Cys Arg Ala Leu Ala Leu Thr Ala Pro Ile Phe Leu Leu
      20             25             30
Leu Phe Pro Ser Ser Glu Cys Gly Trp Phe Ser Leu Leu Ser Ser
      35             40             45
Asp Val Pro Ser Ser Ser Leu Glu Arg Pro Pro Trp Met Thr Glu Glu
      50             55             60
Val Thr Thr Thr Ser Ser Arg Ser Thr Pro Arg Pro Ser Val Ser Pro
      65             70             75             80
Ser Gln Cys Leu Ala Pro Ser Asn Ile Ala Phe Cys Val Tyr His Gln
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Phe Pro Phe Thr Arg
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<210> 5607

<211> 320

<212> DNA

<213> Homo sapiens

<400> 5607

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320

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<210> 5608

<211> 106

<212> PRT

<213> Homo sapiens

<400> 5608

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Val His Thr Arg Gly Ile Gly Ser Arg Leu Leu Thr Lys Met Gly Tyr
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Glu Phe Gly Lys Gly Leu Gly Arg His Ala Glu Gly Arg Val Glu Pro
      20             25             30
Ile His Ala Val Val Leu Pro Arg Gly Lys Ser Leu Asp Gln Cys Val
      35             40             45
Glu Thr Leu Gln Lys Gln Thr Arg Val Gly Lys Ala Gly Thr Asn Lys
      50             55             60
Pro Pro Arg Cys Arg Gly Arg Gly Ala Arg Pro Gly Gly Arg Pro Ala
      65             70             75             80
Pro Arg Asn Val Phe Asp Phe Leu Asn Glu Lys Leu Gln Gly Gln Ala
      85             90             95
Pro Gly Ala Leu Gln Ala Gly Arg Pro Gln

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100

105

<210> 5609
<211> 1843
<212> DNA
<213> Homo sapiens

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<210> 5610

<211> 153

<212> PRT

<213> Homo sapiens

<400> 5610

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			20					25					30		
Phe	Thr	Gly	Gly	Arg	Gln	Asp	His	Thr	Ser	Leu	Pro	His	Trp	Ala	Cys
		35				40						45			
Leu	Leu	Val	Asp	Ser	Cys	Met	Gln	Glu	Ala	Val	Met	Gly	Ser	Leu	Arg
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Ile	Pro	Gln	Cys	Gly	Asn	Gly	Pro	Leu	Arg	Leu	Val	Leu	Arg	Val	Pro
65					70				75					80	
Gly	Ala	Gln	Ser	Trp	Val	Gly	Gly	Cys	Trp	Trp	Glu	Val	Arg	Asn	Lys
			85					90					95		
Phe	Trp	Leu	Pro	Ser	Gly	Gln	Leu	Pro	Thr	Ala	Leu	Thr	Trp	Glu	Val
			100					105					110		
Asp	Ala	His	Arg	Gln	Asp	Ala	Leu	Gly	Tyr	Cys	Cys	Thr	Val	Leu	His
		115				120						125			
Glu	Ile	Phe	Ile	Gln	Pro	Thr	Arg	Phe	Asn	Arg	Ser	Leu	Gly	Ser	Ser
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<210> 5611

<211> 1152

<212> DNA

<213> Homo sapiens

<400> 5611

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 120

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<211> 289

<212> PRT

<213> Homo sapiens

<400> 5612

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<211> 242

<212> PRT

<213> Homo sapiens

<400> 5614

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	50					55					60				
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Met Glu Thr Tyr Glu Arg Leu Arg Glu Lys His Gly Glu Glu Phe Phe
145              150              155              160
Pro Thr Ser Asn Ser Leu Leu His Gly Thr His Val Pro Ser Thr Glu
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Glu Ile Asp Arg Met Val Ile Asp Leu Glu Lys Gln Ile Glu Lys Arg
      180              185              190
Asp Lys Tyr Ser Arg Arg Arg Pro Tyr Asn Asp Asp Ala Asp Ile Asp
      195              200              205
Tyr Ile Asn Glu Arg Asn Ala Lys Phe Asn Lys Lys Ala Glu Arg Phe
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<210> 5615

<211> 1522

<212> DNA

<213> Homo sapiens

<400> 5615

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<211> 507

<212> PRT

<213> Homo sapiens

<400> 5616

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 65 70 75 80
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 85 90 95
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 260 265 270
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<211> 3480

<212> DNA

<213> Homo sapiens

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<211> 1003

<212> PRT

<213> Homo sapiens

<400> 5618

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			20					25					30		
Thr	Thr	Pro	Lys	Ser	Phe	Leu	Glu	Gln	Ile	Ser	Leu	Phe	Lys	Asn	Leu
		35					40					45			
Leu	Lys	Lys	Lys	Gln	Asn	Glu	Val	Ser	Glu	Lys	Lys	Glu	Arg	Leu	Val
	50					55					60				
Asn	Gly	Ile	Gln	Lys	Leu	Lys	Thr	Thr	Ala	Ser	Gln	Val	Gly	Asp	Leu
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Lys	Ala	Arg	Leu	Ala	Ser	Gln	Glu	Ala	Glu	Leu	Gln	Leu	Arg	Asn	His
				85					90					95	
Asp	Ala	Glu	Ala	Leu	Ile	Thr	Lys	Ile	Gly	Leu	Gln	Thr	Glu	Lys	Val
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Ser	Arg	Glu	Lys	Thr	Ile	Ala	Asp	Ala	Glu	Glu	Arg	Lys	Val	Thr	Ala
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Gly	Asp	Val	Leu	Leu	Thr	Ala	Ala	Phe	Val	Ser	Tyr	Val	Gly	Pro	Phe

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Trp	Ile	Lys	Asn	Lys	Tyr	Gly	Met	Asp	Leu	Lys	Val	Thr	His	Leu	Gly
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Pro	Leu	Leu	Gly	Arg	Asn	Thr	Ile	Lys	Lys	Gly	Lys	Tyr	Ile	Arg	Ile
				485					490					495	
Gly	Asp	Lys	Glu	Cys	Glu	Phe	Asn	Lys	Asn	Phe	Arg	Leu	Ile	Leu	His
			500					505					510		
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Leu	Val	Leu	Thr	Lys	His	Gln	Asn	Asp	Phe	Lys	Ile	Glu	Leu	Lys	Tyr
				565					570					575	
Leu	Glu	Asp	Asp	Leu	Leu	Leu	Arg	Leu	Ser	Ala	Ala	Glu	Gly	Ser	Phe
			580					585					590		
Leu	Asp	Asp	Thr	Lys	Leu	Val	Glu	Arg	Leu	Glu	Ala	Thr	Lys	Thr	Thr
		595					600					605			
Val	Ala	Glu	Ile	Glu	His	Lys	Val	Ile	Glu	Ala	Lys	Glu	Asn	Glu	Arg
		610				615					620				
Lys	Ile	Asn	Glu	Ala	Arg	Glu	Cys	Tyr	Arg	Pro	Val	Ala	Ala	Arg	Ala
625					630					635					640
Ser	Leu	Leu	Tyr	Phe	Val	Ile	Asn	Asp	Leu	Gln	Lys	Ile	Asn	Pro	Leu
				645					650					655	
Tyr	Gln	Phe	Ser	Leu	Lys	Ala	Phe	Asn	Val	Leu	Phe	His	Arg	Ala	Ile
			660					665					670		
Glu	Gln	Ala	Asp	Lys	Val	Glu	Asp	Met	Gln	Gly	Arg	Ile	Ser	Ile	Leu
		675					680					685			
Met	Glu	Ser	Ile	Thr	His	Ala	Val	Phe	Leu	Tyr	Thr	Ser	Gln	Ala	Leu
		690				6									

770		775		780
Trp Val Glu Ser Glu Cys Pro Glu Lys Glu Lys Leu Pro Gln Glu Trp				
785		790		795
Lys Lys Lys Ser Leu Ile Gln Lys Leu Ile Leu Leu Arg Ala Met Arg				800
	805		810	815
Pro Asp Arg Met Thr Tyr Ala Leu Arg Asn Phe Val Glu Glu Lys Leu				
	820		825	830
Gly Ala Lys Tyr Val Glu Arg Thr Arg Leu Asp Leu Val Lys Ala Phe				
	835		840	845
Glu Glu Ser Ser Pro Ala Thr Pro Ile Phe Phe Ile Leu Ser Pro Gly				
	850		855	860
Val Asp Ala Leu Lys Asp Leu Glu Ile Leu Gly Lys Arg Leu Gly Phe				
865		870		875
Thr Ile Asp Ser Gly Lys Phe His Asn Val Ser Leu Gly Gln Gly Gln				880
	885		890	895
Glu Thr Val Ala Glu Val Ala Leu Glu Lys Ala Ser Lys Gly Gly His				
	900		905	910
Trp Val Ile Leu Gln Asn Val His Leu Val Ala Lys Trp Leu Gly Thr				
	915		920	925
Leu Glu Lys Leu Leu Glu Arg Phe Ser Gln Gly Ser His Arg Asp Tyr				
	930		935	940
Arg Val Phe Met Ser Ala Glu Ser Ala Pro Thr Pro Asp Glu His Ile				
945		950		955
Ile Pro Gln Gly Leu Leu Glu Asn Ser Ile Lys Ile Thr Asn Glu Pro				
	965		970	975
Pro Thr Gly Met Leu Ala Asn Leu His Ala Ala Leu Tyr Asn Phe Asp				
	980		985	990
Gln Val Arg Lys Arg Ser Arg Leu Gly Arg Gln				
	995		1000	

<210> 5619

<211> 1219

<212> DNA

<213> Homo sapiens

<400> 5619

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60
tagccctacc ggactacgag tatctggctc agcgacatgt cctcacctac atggaggatg
120
cagtgtgcca gctgctagaa aacaggggaag atattagcca atatggaatt gccaggttct
180
tcaactgaata ttttaacagt gtatgccagg gaacacacat tctctttcga gaattcagct
240
tcgtccaagc cccccccac aatagggtat catttttacg ggccttctgg agatgcttcc
300
gaactgtggg caaaaatggc gatttgctga ccatgaaaga atatcactgt ttgctgcaat
360
tactgtgtcc tgatttcccg ctggagctca ctacagaaagc agccaggatt gtgctcatgg
420
acgatgccat ggactgcttg atgtcttttt cagatttcct ctttgccttc cagatccagt
480
tttactactc agaattcctg gacagtgtgg ctgccatcta tgaggacctg ctgtcaggca
540

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agaaccccaa cacagtgatt gtgccgacgt cgtccagtgg gcagcaccgc caacgacctg
 600
 ccttggggcgg ggccggcacg ctggagggcg tggaggcgtc gctgtttctac cagtgtctgg
 660
 aaaacctgtg tgatcggcac aagtacagct gcccaccccc agcacttgtc aaagaggccc
 720
 tcagcaatgt tcagagactg accttctatg gattcctcat ggctctctca aagcacctg
 780
 gaatcaacca agccctcggg aagtcagagc taagcagccg tcagcctctc ctgccgcaca
 840
 acacagggag cagctggcct ctgttagcaa cacggctcca gaggggaagg ggcacacca
 900
 tctctgcctt gacttcccag ggccggactc aatcccaggg agcaggaata tggcgacaaa
 960
 acatggctct tacacattcc catggtaggg gacagccctc cctgcctgca gccctgcccc
 1020
 aacatgaaac cacctcccca tagcagaagc gccagcccc tcctcagaga acccagctc
 1080
 tgctttgggg agcagcctgc aggtcgggca gacacaggac tatttactca gtgacgctag
 1140
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 1200
 agaccttttt tccaagctg
 1219

<210> 5620

<211> 333

<212> PRT

<213> Homo sapiens

<400> 5620

Met	Leu	Ser	Pro	Glu	Arg	Leu	Ala	Leu	Pro	Asp	Tyr	Glu	Tyr	Leu	Ala
1				5				10						15	
Gln	Arg	His	Val	Leu	Thr	Tyr	Met	Glu	Asp	Ala	Val	Cys	Gln	Leu	Leu
			20					25					30		
Glu	Asn	Arg	Glu	Asp	Ile	Ser	Gln	Tyr	Gly	Ile	Ala	Arg	Phe	Phe	Thr
			35				40					45			
Glu	Tyr	Phe	Asn	Ser	Val	Cys	Gln	Gly	Thr	His	Ile	Leu	Phe	Arg	Glu
	50					55				60					
Phe	Ser	Phe	Val	Gln	Ala	Thr	Pro	His	Asn	Arg	Val	Ser	Phe	Leu	Arg
65					70				75					80	
Ala	Phe	Trp	Arg	Cys	Phe	Arg	Thr	Val	Gly	Lys	Asn	Gly	Asp	Leu	Leu
			85					90						95	
Thr	Met	Lys	Glu	Tyr	His	Cys	Leu	Leu	Gln	Leu	Leu	Cys	Pro	Asp	Phe
			100					105					110		
Pro	Leu	Glu	Leu	Thr	Gln	Lys	Ala	Ala	Arg	Ile	Val	Leu	Met	Asp	Asp
	115					120					125				
Ala	Met	Asp	Cys	Leu	Met	Ser	Phe	Ser	Asp	Phe	Leu	Phe	Ala	Phe	Gln
	130					135					140				
Ile	Gln	Phe	Tyr	Tyr	Ser	Glu	Phe	Leu	Asp	Ser	Val	Ala	Ala	Ile	Tyr
145					150				155					160	
Glu	Asp	Leu	Leu	Ser	Gly	Lys	Asn	Pro	Asn	Thr	Val	Ile	Val	Pro	Thr
				165				170						175	
Ser	Ser	Ser	Gly	Gln	His	Arg	Gln	Arg	Pro	Ala	Leu	Gly	Gly	Ala	Gly


```

                180                185                190
Thr Leu Glu Gly Val Glu Ala Ser Leu Phe Tyr Gln Cys Leu Glu Asn
                195                200                205
Leu Cys Asp Arg His Lys Tyr Ser Cys Pro Pro Pro Ala Leu Val Lys
                210                215                220
Glu Ala Leu Ser Asn Val Gln Arg Leu Thr Phe Tyr Gly Phe Leu Met
225                230                235                240
Ala Leu Ser Lys His Arg Gly Ile Asn Gln Ala Leu Gly Lys Ser Glu
                245                250                255
Leu Ser Ser Arg Gln Pro Leu Leu Pro His Asn Thr Gly Ser Ser Trp
                260                265                270
Pro Leu Leu Ala Thr Arg Leu Gln Arg Gly Arg Gly Ile Thr Ile Ser
                275                280                285
Ala Leu Thr Ser Gln Gly Arg Thr Gln Ser Gln Gly Ala Gly Ile Trp
                290                295                300
Arg Gln Asn Met Ala Leu Thr His Ser His Gly Arg Gly Gln Pro Ser
305                310                315                320
Leu Pro Ala Ala Leu Pro Gln His Glu Thr Thr Ser Pro
                325                330

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<210> 5621
 <211> 456
 <212> DNA
 <213> Homo sapiens

<400> 5621
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 gccggccggg ctcacatggt ttgtacaata aatacatctg tggggcgggc tctccgcagc
 120
 cgggaagggc caccgccacg gttcagtcca gttccgggc tcccagcttc atggggccct
 180
 tggccacett cctctcgcg cgtttggcct ccattctccg ccgcccgtcc tcgcgcttct
 240
 tccgggccag ctcagccttg acctgtcctg ggtgctggga cgtgcagaca gggtagcgaa
 300
 ggggtcgccc ttgtcgctgg actctgggcc accccagtta tactcgctgg ccagccgtgt
 360
 accgtcagga ggtggctcct gggagcttgg ctgaaccgt ggcggtggcc cttcccggct
 420
 gcggagagcc cgccccacag atgtatttat tgtaca
 456

<210> 5622
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 5622
 Met Ala Trp Leu Gly Arg Pro Gly Ser His Gly Leu Tyr Asn Lys Tyr
 1 5 10 15
 Ile Cys Gly Ala Gly Ser Pro Gln Pro Gly Arg Ala Thr Ala Thr Val
 20 25 30
 Gln Ser Ser Phe Arg Ala Pro Ser Phe Met Gly Pro Leu Ala Thr Phe

```

          35          40          45
Leu Ser Ala Arg Leu Ala Ser Ile Ser Arg Arg Arg Ser Ser Arg Phe
   50          55          60
Phe Arg Ala Ser Ser Ala Leu Thr Cys Pro Gly Cys Trp Asp Val Gln
65          70          75          80
Thr Gly

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<210> 5623
 <211> 357
 <212> DNA
 <213> Homo sapiens

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<400> 5623
nctggaagaa ctcgtcatgc tctttgtagc gtggtgcttc tgttgetcac aggacaactt
60
gcctttgatg attttcaaga gagttgtgct atgatgtggc aaaagtatgc aggaagcagg
120
cgggtcaatgc ctctgggagc aaggatcctt ttccacgggtg tgttctatgc cgggggcttt
180
gccattgtgt attacctcat tcaaaagttt cattccaggg ctttatatta caagttggca
240
gtggagcagc tgcagagcca tcccgaggca caggaagctc tgggcccctcc tctcaacatc
300
cattatctca agctcatcga cagggaaaac ttcgtggaca ttgttgatgc caagttg
357

```

<210> 5624
 <211> 88
 <212> PRT
 <213> Homo sapiens

```

<400> 5624
Met Trp Gln Lys Tyr Ala Gly Ser Arg Arg Ser Met Pro Leu Gly Ala
 1          5          10          15
Arg Ile Leu Phe His Gly Val Phe Tyr Ala Gly Gly Phe Ala Ile Val
20          25          30
Tyr Tyr Leu Ile Gln Lys Phe His Ser Arg Ala Leu Tyr Tyr Lys Leu
35          40          45
Ala Val Glu Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu Gly
50          55          60
Pro Pro Leu Asn Ile His Tyr Leu Lys Leu Ile Asp Arg Glu Asn Phe
65          70          75          80
Val Asp Ile Val Asp Ala Lys Leu
85

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<210> 5625
 <211> 1017
 <212> DNA
 <213> Homo sapiens

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<400> 5625
gccgactcgt ggtacctggc gcttctgggc ttcgctgagc acttccgcac ttccagcccg
60

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cccaaaatcc gctgtgctg gcactgctg caggccgtgt tccccttcaa gccgcgcag
 120
 cgcacgagg ccctacaca cctgcagctg ggctccgttc tctatcacca caccaagaac
 180
 agcgagcagg cgcgagcca cctggagaag gcgtggttga tatcacagca aatcccacag
 240
 ttcgaagatg ttaaatttga agcagcaagt ctgtgtctg aattgtactg tcaagagaat
 300
 tccgttgatg cagcaaagcc gctgctgagg aaggcgatcc agatctcaca gcagacccca
 360
 tattggcact gccgcctgct cttccagctc gctcaactgc acacgcttga gaaggacctg
 420
 gtgtcggcct gtgacctcct ggggttaggg gccgagtagc cccgggtggg gggatctgaa
 480
 tacacaggg cgctgttcct cctcagcaag gggatgctgc tgctgatgga gcgaaagctg
 540
 caggaggtgc acccgctgct gaccctctgc gggcagatcg tggagaactg gcaggggaac
 600
 cccatccaga aggagtcgct gcgtgtcttc ttcctggctc tccaggtcac ccactatctg
 660
 gatgccgggc aggtgaagag cgtgaagccg tgtctgaagc agctgcagca gtgcatccag
 720
 accatctcca cactgcagca tgatgagatc ctgccagca accccgctga cctcttccac
 780
 tggtgcccc aggagcacat gtgtgtgctt gtctacctgg tgactgtgat gcactccatg
 840
 caggccggct acctggagaa ggcgagaaag tacacggaca aggccctcat gcagctggag
 900
 aagctcaaga tgctggactg cagccccatc ctgtcatcct tccaagtgat cctgtctggag
 960
 cacatcatca tgtgccgcct tgtcacgggt cacaaggcca cggcgctgca ggagatc
 1017

<210> 5626

<211> 339

<212> PRT

<213> Homo sapiens

<400> 5626

Ala	Asp	Ser	Trp	Tyr	Leu	Ala	Leu	Leu	Gly	Phe	Ala	Glu	His	Phe	Arg
1				5					10					15	
Thr	Ser	Ser	Pro	Pro	Lys	Ile	Arg	Leu	Cys	Val	His	Cys	Leu	Gln	Ala
			20					25					30		
Val	Phe	Pro	Phe	Lys	Pro	Pro	Gln	Arg	Ile	Glu	Ala	Arg	Thr	His	Leu
		35					40					45			
Gln	Leu	Gly	Ser	Val	Leu	Tyr	His	His	Thr	Lys	Asn	Ser	Glu	Gln	Ala
	50				55					60					
Arg	Ser	His	Leu	Glu	Lys	Ala	Trp	Leu	Ile	Ser	Gln	Gln	Ile	Pro	Gln
65				70					75					80	
Phe	Glu	Asp	Val	Lys	Phe	Glu	Ala	Ala	Ser	Leu	Leu	Ser	Glu	Leu	Tyr
			85					90					95		
Cys	Gln	Glu	Asn	Ser	Val	Asp	Ala	Ala	Lys	Pro	Leu	Leu	Arg	Lys	Ala
			100					105					110		
Ile	Gln	Ile	Ser	Gln	Gln	Thr	Pro	Tyr	Trp	His	Cys	Arg	Leu	Leu	Phe

115	120	125
Gln Leu Ala Gln Leu His Thr Leu Glu Lys Asp Leu Val Ser Ala Cys		
130	135	140
Asp Leu Leu Gly Val Gly Ala Glu Tyr Ala Arg Val Val Gly Ser Glu		
145	150	155
Tyr Thr Arg Ala Leu Phe Leu Leu Ser Lys Gly Met Leu Leu Leu Met		
165	170	175
Glu Arg Lys Leu Gln Glu Val His Pro Leu Leu Thr Leu Cys Gly Gln		
180	185	190
Ile Val Glu Asn Trp Gln Gly Asn Pro Ile Gln Lys Glu Ser Leu Arg		
195	200	205
Val Phe Phe Leu Val Leu Gln Val Thr His Tyr Leu Asp Ala Gly Gln		
210	215	220
Val Lys Ser Val Lys Pro Cys Leu Lys Gln Leu Gln Gln Cys Ile Gln		
225	230	235
Thr Ile Ser Thr Leu His Asp Asp Glu Ile Leu Pro Ser Asn Pro Ala		
245	250	255
Asp Leu Phe His Trp Leu Pro Lys Glu His Met Cys Val Leu Val Tyr		
260	265	270
Leu Val Thr Val Met His Ser Met Gln Ala Gly Tyr Leu Glu Lys Ala		
275	280	285
Gln Lys Tyr Thr Asp Lys Ala Leu Met Gln Leu Glu Lys Leu Lys Met		
290	295	300
Leu Asp Cys-Ser Pro Ile-Leu-Ser Ser-Phe Gln Val Ile Leu Leu Glu		
305	310	315
His Ile Ile Met Cys Arg Leu Val Thr Gly His Lys Ala Thr Ala Leu		
325	330	335
Gln Glu Ile		

<210> 5627

<211> 1401

<212> DNA

<213> Homo sapiens

<400> 5627

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120
aagagccagg gttatgtgca catgggaggt ggggaggaca ggggctgtat gtgacctca
180
catctgttcc tcgcgcccc gatggcttct gctgcctgct ccatggaccc catcgacagc
240
tttgagctcc tggatctcct gtttgaccgg caggacggca tcttgagaca cgtggagctg
300
ggcgaggggt ggggtcacgt caaggaccag gtcctgccaa accccgactc tgacgacttc
360
ctcagctcca tcctgggctc tggagactca ctgcccagct cccactctg gtcccccgaa
420
ggcagtgata gtggcatctc cgaagacctc cctccgacc ccaggacac ccctccacgc
480
agcggaccag ccacctcccc cgccggctgc catcctgccc agcctggcaa ggggccctgc
540

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ctctcctatc atcctggcaa ctcttgctcc accacaaccc cagggccagt gatccaacaa
 600
 cagcatcacc tgggggcctc ctacctcctg cgacctgggg ctgggcactg tcaggagctg
 660
 gtgctcaccg aggatgagaa gaagctgctg gctaaagaag gcataccct gccactcag
 720
 ctgccccctca ctaagtacga ggagcgagtg ctgaaaaaaa tccgccggaa aatccggaac
 780
 aagcagtcgg cgcaagaaag caggaagaag aagaaggaat atatcgatgg cctggagact
 840
 cggctctgtt gctgtccttt gccctcatca tctccctc catcagccct tttggcccca
 900
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 960
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 1020
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 1080
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 1140
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 1200
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 1320
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 1380
 ggcacagctc atagccacac a
 1401

<210> 5628

<211> 299

<212> PRT

<213> Homo sapiens

<400> 5628

Met	Ala	Ser	Ala	Ala	Cys	Ser	Met	Asp	Pro	Ile	Asp	Ser	Phe	Glu	Leu
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Leu	Asp	Leu	Leu	Phe	Asp	Arg	Gln	Asp	Gly	Ile	Leu	Arg	His	Val	Glu
		20						25					30		
Leu	Gly	Glu	Gly	Trp	Gly	His	Val	Lys	Asp	Gln	Val	Leu	Pro	Asn	Pro
		35					40					45			
Asp	Ser	Asp	Asp	Phe	Leu	Ser	Ser	Ile	Leu	Gly	Ser	Gly	Asp	Ser	Leu
		50				55					60				
Pro	Ser	Ser	Pro	Leu	Trp	Ser	Pro	Glu	Gly	Ser	Asp	Ser	Gly	Ile	Ser
65				70					75				80		
Glu	Asp	Leu	Pro	Ser	Asp	Pro	Gln	Asp	Thr	Pro	Pro	Arg	Ser	Gly	Pro
			85					90					95		
Ala	Thr	Ser	Pro	Ala	Gly	Cys	His	Pro	Ala	Gln	Pro	Gly	Lys	Gly	Pro
			100					105					110		
Cys	Leu	Ser	Tyr	His	Pro	Gly	Asn	Ser	Cys	Ser	Thr	Thr	Thr	Pro	Gly
		115					120						125		
Pro	Val	Ile	Gln	Gln	Gln	His	His	Leu	Gly	Ala	Ser	Tyr	Leu	Leu	Arg

```

      130              135              140
Pro Gly Ala Gly His Cys Gln Glu Leu Val Leu Thr Glu Asp Glu Lys
145              150              155              160
Lys Leu Leu Ala Lys Glu Gly Ile Thr Leu Pro Thr Gln Leu Pro Leu
      165              170              175
Thr Lys Tyr Glu Glu Arg Val Leu Lys Lys Ile Arg Arg Lys Ile Arg
      180              185              190
Asn Lys Gln Ser Ala Gln Glu Ser Arg Lys Lys Lys Lys Glu Tyr Ile
      195              200              205
Asp Gly Leu Glu Thr Arg Ser Cys Cys Cys Pro Leu Pro Ser Ser Ser
      210              215              220
Ser Pro Pro Ser Ala Leu Leu Ala Pro Thr Lys Pro Arg Ala Leu Gly
225              230              235              240
Thr Leu Arg Leu Tyr Glu Cys Ser Pro Glu Leu Cys Thr Thr Met Leu
      245              250              255
Pro Pro Ala Trp Leu Leu Met Leu Cys Gln Ala Pro Arg Pro Gln Asp
      260              265              270
Pro Asp Pro Arg Leu Thr Gln Pro Glu Lys Ser Leu Gln Glu Ala Pro
      275              280              285
Gly Gln Thr Gly Ala Ser Arg Thr Pro Arg Thr
      290              295

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<210> 5629

<211> 428

<212> DNA

<213> Homo sapiens

<400> 5629

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gtgcacgacc ccactgaatc atcccacaac catggatggg agacacactc agtctccttt
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aacagaagat aaagctgggg cttacagaga atgtacaact tggcccaggg cacaccagtt
120
agccatcagg ggcagngctg ctattcaggt ctgggactgt gggactccag agcccatgtt
180
ttttacgagg atgccatact gccacaatgg atggtgtctt tatctcctga tatatgattg
240
tgtgttggga ggcgtggggg ggcagctgga agaattggaga ggcataatttg tggaggatct
300
tcccccatte tctgctaccc tctcttgagg ctcccagttc catctgagaa attatctact
360
ctgagaaatc gtcacaacac agcatgggtg tgagtgcagt ggcagaagcc tgtgcctggg
420
tgtatggg
428

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<210> 5630

<211> 110

<212> PRT

<213> Homo sapiens

<400> 5630

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Met Asp Gly Arg His Thr Gln Ser Pro Leu Thr Glu Asp Lys Ala Gly
1          5          10          15
Ala Tyr Arg Glu Cys Thr Thr Trp Pro Arg Ala His Gln Leu Ala Ile

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20								25					30				
Arg	Gly	Xaa	Ala	Ala	Ile	Gln	Val	Trp	Asp	Cys	Gly	Thr	Pro	Glu	Pro		
35								40					45				
Met	Phe	Phe	Thr	Arg	Met	Pro	Tyr	Cys	His	Asn	Gly	Trp	Cys	Leu	Tyr		
50								55					60				
Leu	Leu	Ile	Tyr	Asp	Cys	Val	Leu	Gly	Gly	Val	Gly	Trp	Gln	Leu	Glu		
65								70					75				
Glu	Trp	Arg	Gly	Ile	Phe	Val	Glu	Asp	Leu	Pro	Pro	Phe	Ser	Ala	Thr		
85								90					95				
Leu	Ser	Trp	Ser	Ser	Gln	Phe	His	Leu	Arg	Asn	Tyr	Leu	Leu				
100								105					110				

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<210> 5631
<211> 783
<212> DNA
<213> Homo sapiens
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<400> 5631
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tttgcacacg tgtgcccctg tccggcccgg gggggtcatc tctccttcac ggagagaatt
120
ctttttatta cgagtgaaca gatgaactaa ggtaagcggg tctcagcctt ccgctgggtgc
180
agcatctcca cgcagggcct cagccccgtc ctggccttgc ctgaggactg caccatgggt
240
gttccttggg catggaggag gcagcaggaa ggggtgacag gagcaggagc aggtgcaggg
300
cacctcacac cacaggcctc cccacctct gagctgccaa cagccaagac tcctggcgag
360
gccgggagag gaggggtgag agggaaggag ggtctctgtg aaagcaagcc ccacccccag
420
agcagagcag agaccaggt ctgcaaata caccctcccc ccacgagttc ctcttttgag
480
gccagcagca cccgagggag ggcaggggct gcacagagac cagagaaagg aaaaaccac
540
agaagaaaac tcaaagcatc agtcccatgc gtgtctgtg aacgagtga tgggccc aaa
600
ggctcttctc taaaaacggc acgcatccat ccgacagggg gccacaggac acggccgggg
660
ccgtctgcgt ctgtgcctgt gcagcccaca ccagtgcagc ccggggccct ctcagacctc
720
accacacgcg tgcccagcac atgtgtgcac acgcagatgc aggagagaac acacaccacc
780
gtc
783

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<210> 5632
<211> 183
<212> PRT
<213> Homo sapiens
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<400> 5632
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Glu Leu Pro Thr Ala Lys Thr Pro Gly Glu Ala Gly Arg Gly Gly Val
      35           40           45
Arg Gly Lys Glu Gly Leu Cys Glu Ser Lys Pro His Pro Gln Ser Arg
      50           55           60
Ala Glu Thr Gln Val Cys Lys Ser His Pro Pro Thr Ser Ser Ser
      65           70           75           80
Phe Glu Ala Ser Ser Thr Arg Gly Arg Ala Gly Ala Ala Gln Arg Pro
      85           90           95
Glu Lys Gly Lys Pro His Arg Arg Lys Leu Lys Ala Ser Val Pro Cys
      100           105           110
Val Ser Ala Glu Arg Val Asn Gly Pro Lys Gly Ser Ser Leu Gln Thr
      115           120           125
Ala Arg Ile His Pro Thr Gly Gly His Arg Thr Arg Pro Gly Pro Ser
      130           135           140
Ala Ser Val Pro Val Gln Pro Thr Pro Val Gln Pro Gly Ala Leu Ser
      145           150           155           160
Asp Leu Thr Thr Arg Val Pro Ser Thr Cys Val His Thr Gln Met Gln
      165           170           175
Glu Arg Thr His Thr Thr Val
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<210> 5633

<211> 2181

<212> DNA

<213> Homo sapiens

<400> 5633

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240
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300
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360
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420
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480
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600
ctggtggtca tcgagggcat gggccgtgct gtccacacaa actaccacgc agccctgcgc
660
tgcgagagcc tcaagctggc cgtcatcaag aacgcgtggc tggccgagcg gctgggcggc
720

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cggtctttca ggcctatctt caagtacgag gtcccagccg agtgaggcgc tgcagctgcc
780
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840
atgtgcctta attttcgcag ataacagggg gaatagacat catTTtggga gtcttccctt
900
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960
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1080
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1140
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1260
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1680
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1740
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1920
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1980
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2040
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2160
aaaaaactct atttggtgcg t
2181

<210> 5634

<211> 289

<212> PRT

<213> Homo sapiens

<400> 5634

Pro Thr Ala Ser Pro Ser Ser Trp Gln Ser Val Leu Arg Ala Trp Thr
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 20 25 30
 Phe Asn Phe Pro Asp Pro Tyr Ser Lys Val Lys Gln Arg Glu Asn Gly
 35 40 45
 Val Ala Leu Arg Cys Phe Pro Gly Val Val Arg Ser Leu Asp Ala Leu
 50 55 60
 Gly Trp Glu Glu Arg Gln Leu Ala Leu Val Lys Gly Leu Leu Ala Gly
 65 70 75 80
 Asn Val Phe Asp Trp Gly Ala Lys Ala Val Ser Ala Val Leu Glu Ser
 85 90 95
 Asp Pro Tyr Phe Gly Phe Glu Glu Ala Lys Arg Lys Leu Gln Glu Arg
 100 105 110
 Pro Trp Leu Val Asp Ser Tyr Ser Glu Trp Leu Gln Arg Leu Lys Gly
 115 120 125
 Pro Pro His Lys Cys Ala Leu Ile Phe Ala Asp Asn Ser Gly Ile Asp
 130 135 140
 Ile Ile Leu Gly Val Phe Pro Phe Val Arg Glu Leu Leu Leu Arg Gly
 145 150 155 160
 Thr Glu Val Ile Leu Ala Cys Asn Ser Gly Pro Ala Leu Asn Asp Val
 165 170 175
 Thr His Ser Glu Ser Leu Ile Val Ala Glu Arg Ile Ala Gly Met Asp
 180 185 190
 Pro Val Val His Ser Ala Leu Gln Glu Glu Arg Leu Leu Leu Val Gln
 195 200 205
 Thr Gly Ser Ser Ser Pro Cys Leu Asp Leu Ser Arg Leu Asp Lys Gly
 210 215 220
 Leu Ala Ala Leu Val Arg Glu Arg Gly Ala Asp Leu Val Val Ile Glu
 225 230 235 240
 Gly Met Gly Arg Ala Val His Thr Asn Tyr His Ala Ala Leu Arg Cys
 245 250 255
 Glu Ser Leu Lys Leu Ala Val Ile Lys Asn Ala Trp Leu Ala Glu Arg
 260 265 270
 Leu Gly Gly Arg Leu Phe Ser Val Ile Phe Lys Tyr Glu Val Pro Ala
 275 280 285
 Glu

<210> 5635

<211> 614

<212> DNA

<213> Homo sapiens

<400> 5635

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 120
 gcactcatca atggtgatga aaacctggcc tgccaaatat atgaaaacaa tcttcagcta
 180

aaagaatctc ttgatccaaa tacatcttat ggggagccct accagcacia tactccatta
 240
 cattatgctg ctagacatgg aatgaataaa atattaggag atgatttcag aagagcagat
 300
 tgtctgcaga tgatcttaaa atggaaagga gcaaaacttg accaggggtga atatgagaga
 360
 gcagctattg atgctgttga taacaaaaaa aacacaccct tgcactatgc tgctgcctca
 420
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 480
 gatactcctt gtgattgtgc tgaaaagcaa caccacaaag atttggccct caatctggaa
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 614

<210> 5636

<211> 204

<212> PRT

<213> Homo sapiens

<400> 5636

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			20					25					30		
Asn	Thr	Thr	Thr	Lys	Phe	Arg	Lys	Ala	Leu	Ile	Asn	Gly	Asp	Glu	Asn
		35					40					45			
Leu	Ala	Cys	Gln	Ile	Tyr	Glu	Asn	Asn	Pro	Gln	Leu	Lys	Glu	Ser	Leu
	50					55				60					
Asp	Pro	Asn	Thr	Ser	Tyr	Gly	Glu	Pro	Tyr	Gln	His	Asn	Thr	Pro	Leu
65					70					75				80	
His	Tyr	Ala	Ala	Arg	His	Gly	Met	Asn	Lys	Ile	Leu	Gly	Asp	Asp	Phe
				85					90					95	
Arg	Arg	Ala	Asp	Cys	Leu	Gln	Met	Ile	Leu	Lys	Trp	Lys	Gly	Ala	Lys
			100					105					110		
Leu	Asp	Gln	Gly	Glu	Tyr	Glu	Arg	Ala	Ala	Ile	Asp	Ala	Val	Asp	Asn
	115						120					125			
Lys	Lys	Asn	Thr	Pro	Leu	His	Tyr	Ala	Ala	Ala	Ser	Gly	Met	Lys	Ala
	130					135					140				
Cys	Val	Glu	Lys	His	Gly	Gly	Asp	Leu	Phe	Ala	Glu	Asn	Glu	Asn	Lys
145					150					155				160	
Asp	Thr	Pro	Cys	Asp	Cys	Ala	Glu	Lys	Gln	His	His	Lys	Asp	Leu	Ala
				165					170				175		
Leu	Asn	Leu	Glu	Ser	Gln	Met	Val	Phe	Ser	Arg	Asp	Pro	Glu	Ala	Glu
			180					185					190		
Glu	Ile	Glu	Ala	Glu	Tyr	Ala	Ala	Leu	Asp	Lys	Arg				
	195						200								

<210> 5637

<211> 825

<212> DNA

<213> Homo sapiens

<400> 5637

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120
ccaggtactc agggccctgc cctcgtggcc ttgtccgctc gccgcgggtg gggctggcac
180
aaggcccggt ttggaggaag tggaggctcc caggagaaag gcagtggctg tgatcgaca
240
gcccaggctc tgccctgcac tgccctggac cacgaggctg cccaccccag acaggtggga
300
cccttttccc gcatgcagac tctgagcagc agcttcctgt gacccccacc gcgtcctgt
360
cctcaggctc atgccctgcg ggaacagaag ccaagaccg gtagaaaatc caaggtgttt
420
aaatataaat aagagcgatt cccacagccc cacggtgctg gccagcctca caggtgcccg
480
ctggttctgt gacccatccc aggcacacgc tcccctggct gggcgcttg ccagggtcc
540
cctgtggctg gcgtgtggag acacgtgggc ctttctccac gtgccacga gggccgtagc
600
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660
ggagctgctg actgtgtcag agcccggctg cccagcggcc cggcgccctc cctccagctg
720
cccagcctgg gatccgtccg ctgtctgtct cctgaaccag ggagtctgac ccactcacag
780
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<210> 5638

<211> 132

<212> PRT

<213> Homo sapiens

<400> 5638

Met Pro Cys Gly Asn Arg Ser Gln Asp Pro Val Glu Asn Pro Arg Cys
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Leu Asn Ile Asn Lys Ser Asp Ser His Ser Pro Thr Val Leu Ala Ser
20 25 30
Leu Thr Gly Ala Arg Trp Phe Cys Asp Pro Ser Gln Ala His Ala Pro
35 40 45
Leu Ala Gly Arg Leu Ala Arg Ala Pro Leu Trp Leu Ala Cys Gly Asp
50 55 60
Thr Trp Ala Leu Leu His Val Pro Thr Arg Ala Val Ala Gly Ser Lys
65 70 75 80
Glu Ala Gln Pro Arg Pro Ala Cys Val Asp Pro Ala Gly Leu Arg Ala
85 90 95
Pro Glu Leu Leu Thr Val Ser Glu Pro Gly Cys Pro Ala Pro Arg Arg
100 105 110
Pro Pro Ser Ser Cys Pro Ala Trp Asp Pro Ser Ala Val Cys Leu Leu
115 120 125
Asn Gln Gly Val

130

<210> 5639

<211> 2433

<212> DNA

<213> Homo sapiens

<400> 5639

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120
atttgacatt tcttcttcca catccagtgt atctgacatt tagcgacat ttgatttgca
180
ctcaccact ttgaggagct caattgccgc ttaagtccgt ggctagtggc tgccctaaag
240
ttcagcaccg ccacggagct ttgggtccac ccggactgta aaaaggaagc acttccgtta
300
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660
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720
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780
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900
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960
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1020
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1380

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 1920
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 1980
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<210> 5640

<211> 540

<212> PRT

<213> Homo sapiens

<400> 5640

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Ser	Ser	Arg	Leu	Ala	Ala	Gly	Pro	Thr	Phe	Gln	His	Phe	Leu	Lys	Ser
		20					25						30		
Ala	Ser	Ala	Pro	Gln	Glu	Lys	Leu	Ser	Ser	Glu	Val	Glu	Asp	Pro	Pro
		35					40					45			
Pro	Tyr	Leu	Met	Met	Asp	Glu	Leu	Leu	Gly	Arg	Gln	Arg	Lys	Val	Tyr
	50				55					60					
Leu	Glu	Thr	Tyr	Gly	Cys	Gln	Met	Asn	Val	Asn	Asp	Thr	Glu	Ile	Ala
65				70				75						80	
Trp	Ser	Ile	Leu	Gln	Lys	Ser	Gly	Tyr	Leu	Arg	Pro	Val	Thr	Ser	Lys

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      85              90              95
Ala Asp Val Ile Leu Leu Val Thr Cys Ser Ile Arg Glu Lys Ala Glu
      100              105              110
Gln Thr Ile Trp Asn Arg Leu His Gln Leu Lys Ala Leu Lys Thr Arg
      115              120              125
Arg Pro Arg Ser Arg Val Pro Leu Arg Ile Gly Ile Leu Gly Cys Met
      130              135              140
Ala Glu Arg Leu Lys Glu Glu Ile Leu Asn Arg Glu Lys Met Val Asp
      145              150              155              160
Ile Leu Ala Gly Pro Asp Ala Tyr Arg Asp Leu Pro Arg Leu Leu Ala
      165              170              175
Val Ala Glu Ser Gly Gln Gln Ala Ala Asn Val Leu Leu Ser Leu Asp
      180              185              190
Glu Thr Tyr Ala Asp Val Met Pro Val Gln Thr Ser Ala Ser Ala Thr
      195              200              205
Ser Ala Phe Val Ser Ile Met Arg Gly Cys Asp Asn Met Cys Ser Tyr
      210              215              220
Cys Ile Val Pro Phe Thr Arg Gly Arg Glu Arg Ser Arg Pro Ile Ala
      225              230              235              240
Ser Ile Leu Glu Glu Val Lys Lys Leu Ser Glu Gln Gly Leu Lys Glu
      245              250              255
Val Thr Leu Leu Gly Gln Asn Val Asn Ser Phe Arg Asp Asn Ser Glu
      260              265              270
Val Gln Phe Asn Ser Ala Val Pro Thr Asn Leu Ser Arg Gly Phe Thr
      275              280              285
Thr Asn Tyr Lys Thr Lys Gln Gly Gly Leu Arg Phe Ala His Leu Leu
      290              295              300
Asp Gln Val Ser Arg Val Asp Pro Glu Met Arg Ile Arg Phe Thr Ser
      305              310              315              320
Pro His Pro Lys Asp Phe Pro Asp Glu Val Leu Gln Leu Ile His Glu
      325              330              335
Arg Asp Asn Ile Cys Lys Gln Ile His Leu Pro Ala Gln Ser Gly Ser
      340              345              350
Ser Arg Val Leu Glu Ala Met Arg Arg Gly Tyr Ser Arg Glu Ala Tyr
      355              360              365
Val Glu Leu Val His His Ile Arg Glu Ser Ile Pro Gly Val Ser Leu
      370              375              380
Ser Ser Asp Phe Ile Ala Gly Phe Cys Gly Glu Thr Glu Glu Asp His
      385              390              395              400
Val Gln Thr Val Ser Leu Leu Arg Glu Val Gln Tyr Asn Met Gly Phe
      405              410              415
Leu Phe Ala Tyr Ser Met Arg Gln Lys Thr Arg Ala Tyr His Arg Leu
      420              425              430
Lys Asp Asp Val Pro Glu Glu Val Lys Leu Arg Arg Leu Glu Glu Leu
      435              440              445
Ile Thr Ile Phe Arg Glu Glu Ala Thr Lys Ala Asn Gln Thr Ser Val
      450              455              460
Gly Cys Thr Gln Leu Val Leu Val Glu Gly Leu Ser Lys Arg Ser Ala
      465              470              475              480
Thr Asp Leu Cys Gly Arg Asn Asp Gly Asn Leu Lys Val Ile Phe Pro
      485              490              495
Asp Ala Glu Met Glu Asp Val Asn Asn Pro Gly Leu Arg Val Arg Ala
      500              505              510
Gln Pro Gly Asp Tyr Val Leu Val Lys Ile Thr Xaa Gln Pro Val Leu

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515 520 525

Arg His Leu Gly Asp Met Phe Ser Ala Gly Pro Leu
530 535 540

<210> 5641
<211> 293
<212> DNA
<213> Homo sapiens

<400> 5641
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ttctgtggcc acgcgtccaa aaccaatcag gtcaactcgg gcggtgtgct gctgaggttg
120
caggtgggcg aggaggtgtg gctggctggg gcacccctgg catccctgga gagccaggtg
180
aggagggcag atacaagcag aaattccagt cagtgttcac ggctactcgg cagaccacc
240
agccccctgc acccaacagc ctgatcagat tcaacgcggg cctcaccaac ccg
293

<210> 5642
<211> 87
<212> PRT
<213> Homo sapiens

<400> 5642
Ala Ser His Thr Ala Asn Leu Cys Val Leu Leu Tyr Arg Ser Gly Val
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Lys Val Val Thr Phe Cys Gly His Ala Ser Lys Thr Asn Gln Val Asn
20 25 30
Ser Gly Gly Val Leu Leu Arg Leu Gln Val Gly Glu Glu Val Trp Leu
35 40 45
Ala Gly Ala Pro Leu Ala Ser Leu Glu Ser Gln Val Arg Arg Ala Asp
50 55 60
Thr Ser Arg Asn Ser Ser Gln Cys Ser Arg Ser Leu Gly Arg Pro Thr
65 70 75 80
Ser Pro Leu His Pro Thr Ala
85

<210> 5643
<211> 1218
<212> DNA
<213> Homo sapiens

<400> 5643
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120
aaagccaaac gatatcacat ggatgccagt ggtgaggctg taagcgaaac tcttcagttt
180
aaagctcaag atctcttaag ggcagtccca agatccagag cagagatgta tgatgacgtc
240

cacagcgatg gcagatactc cctcagtgga tctgtagctc actctagaga tgccggaaga
 300
 gaaggcctga gaagtgacgt atttccaggg ccttccttca gatcaagcaa cccttccatc
 360
 agtgatgaca gctacttttcg caaagaatgt ggccgggatac tggaattttc tcaactctgat
 420
 tctcggggacc aggtcattgg ccaccggaaa ttggggcatt tccgtttctca ggactggaaa
 480
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 540
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 600
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 660
 gaggctgact ctgtgcttag gggcagcagt caagtccagg ccagaggctg agctctaaac
 720
 atcgttgacc aggaagggtc cctcctagga aagggggaga ctcagggcct gctcacagct
 780
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 840
 gtgaatcgta ttactcccaa aactcagggc actaaccaaa tccagaaaaa cactccaagt
 900
 cctgatgtga ccctggggac aaaccaggga acagaagata tccagttccc cattcagaag
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 1080
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<210> 5644

<211> 202

<212> PRT

<213> Homo sapiens

<400> 5644

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			20					25					30		
Ser	Arg	Leu	Ile	Glu	Lys	Glu	Cys	Leu	Glu	Lys	Glu	Ser	Arg	Asp	Tyr
		35					40					45			
Asp	Val	Asp	His	Pro	Gly	Glu	Ala	Asp	Ser	Val	Leu	Arg	Gly	Ser	Ser
	50					55					60				
Gln	Val	Gln	Ala	Arg	Gly	Arg	Ala	Leu	Asn	Ile	Val	Asp	Gln	Glu	Gly
65					70				75					80	
Ser	Leu	Leu	Gly	Lys	Gly	Glu	Thr	Gln	Gly	Leu	Leu	Thr	Ala	Lys	Gly
			85					90						95	
Gly	Val	Gly	Lys	Leu	Val	Thr	Leu	Arg	Asn	Val	Ser	Thr	Lys	Lys	Ile

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          100          105          110
Pro Thr Val Asn Arg Ile Thr Pro Lys Thr Gln Gly Thr Asn Gln Ile
          115          120          125
Gln Lys Asn Thr Pro Ser Pro Asp Val Thr Leu Gly Thr Asn Pro Gly
          130          135          140
Thr Glu Asp Ile Gln Phe Pro Ile Gln Lys Ile Pro Leu Gly Leu Asp
145          150          155          160
Leu Lys Asn Leu Arg Leu Pro Arg Arg Lys Met Ser Phe Asp Ile Ile
          165          170          175
Asp Lys Ser Asp Val Phe Ser Arg Phe Gly Ile Glu Ile Ile Lys Trp
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Ala Gly Phe His Thr Ile Lys Leu Asp Tyr
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<210> 5645
 <211> 156
 <212> DNA
 <213> Homo sapiens

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<210> 5646
 <211> 52
 <212> PRT
 <213> Homo sapiens

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Ala Gln Arg Cys Pro Gln Ile Ser Phe Pro Ser Pro Arg Gln Glu Asp
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Thr Ser Thr Gly Lys Phe Thr Cys Lys Val Pro Gly Leu Tyr Tyr Phe
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Val Tyr His Ala
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<210> 5647
 <211> 150
 <212> DNA
 <213> Homo sapiens

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<210> 5648
 <211> 50
 <212> PRT
 <213> Homo sapiens

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 Gly Ile Arg Gly Pro Lys Gly Gln Lys Gly Glu Pro Gly Leu Pro Gly
 35 40 45
 His Pro
 50

<210> 5649
 <211> 345
 <212> DNA
 <213> Homo sapiens

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 gaccgagtc tccggcgag cgcgggcggc ttgctccgct cgcaggatcat ccacagcggt
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 cacttcatgg tgctgctgcc gcacagcgac tcgctgcccc ggcgggcgca ccaggagggt
 240
 ccgtggggcc ctccgacttc gggccgcgca gtatcgaccc cacactcaca cgcctcttcg
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<210> 5650
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 5650
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 Ala Arg Ala Ala Cys Ser Ala Arg Arg Ser Ser Thr Ala Val Thr Ser
 35 40 45
 Trp Cys Arg Arg Arg Thr Ala Thr Arg Cys Pro Gly Gly Ala Thr Arg
 50 55 60
 Arg Val Arg Gly Ala Leu Arg Leu Arg Ala Ala Gln Tyr Arg Pro His
 65 70 75 80
 Thr His Thr Pro Leu Arg Val Leu Glu Pro Gly Leu Gln Trp Gln Ala
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 Gly Val Ser Gln

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<210> 5651
 <211> 615
 <212> DNA
 <213> Homo sapiens

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 gctagcttgc taggaatgag agtaaacaat gtttatgatg tggataataa gacatacctt
 240
 attcgtcttc aaaaaccgga ctttaaagct acacttttac ttgaatctgg catacaaatt
 300
 catacaacag aatttgagtg gcctaagaat atgatgccgt ctagttttgc catgaagtgc
 360
 cgaaaacatt tgaagagtcg gagattagtc agtgcaaac agcttggtgt ggatagaatt
 420
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 480
 agggggaaca ttgttcttac agattatgag tacgtaattt taaatattct aagggttcga
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<210> 5652
 <211> 163
 <212> PRT
 <213> Homo sapiens

<400> 5652
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 Asp Asn Lys Thr Tyr Leu Ile Arg Leu Gln Lys Pro Asp Phe Lys Ala
 35 40 45
 Thr Leu Leu Leu Glu Ser Gly Ile Gln Ile His Thr Thr Glu Phe Glu
 50 55 60
 Trp Pro Lys Asn Met Met Pro Ser Ser Phe Ala Met Lys Cys Arg Lys
 65 70 75 80
 His Leu Lys Ser Arg Arg Leu Val Ser Ala Lys Gln Leu Gly Val Asp
 85 90 95
 Arg Ile Val Asp Phe Gln Phe Gly Ser Asp Glu Ala Ala Tyr His Leu
 100 105 110
 Ile Ile Glu Leu Tyr Asp Arg Gly Asn Ile Val Leu Thr Asp Tyr Glu
 115 120 125
 Tyr Val Ile Leu Asn Ile Leu Arg Phe Arg Thr Asp Glu Ala Asp Asp

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Ala Glu Pro		160

<210> 5653

<211> 1439

<212> DNA

<213> Homo sapiens

<400> 5653

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1260

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<210> 5654
 <211> 245
 <212> PRT
 <213> Homo sapiens

<400> 5654
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 Tyr Gly Ile Pro Gly Met Pro Gly Leu Pro Gly Ala Pro Gly Lys Asp
 35 40 45
 Gly Tyr Asp Gly Leu Pro Gly Pro Lys Gly Glu Pro Gly Ile Pro Ala
 50 55 60
 Ile Pro Gly Ile Arg Gly Pro Lys Gly Gln Lys Gly Glu Pro Gly Leu
 65 70 75 80
 Pro Gly His Pro Gly Lys Asn Gly Pro Met Gly Pro Pro Gly Met Pro
 85 90 95
 Gly Val Pro Gly Pro Met Gly Ile Pro Gly Glu Pro Gly Glu Glu Gly
 100 105 110
 Arg Tyr Lys Gln Lys Phe Gln Ser Val Phe Thr Val Thr Arg Gln Thr
 115 120 125
 His Gln Pro Pro Ala Pro Asn Ser Leu Ile Arg Phe Asn Ala Val Leu
 130 135 140
 Thr Asn Pro Gln Gly Asp Tyr Asp Thr Ser Thr Gly Lys Phe Thr Cys
 145 150 155 160
 Lys Val Pro Gly Leu Tyr Tyr Phe Val Tyr His Ala Ser His Thr Ala
 165 170 175
 Asn Leu Cys Val Leu Leu Tyr Arg Ser Gly Val Lys Val Val Thr Phe
 180 185 190
 Cys Gly His Thr Ser Lys Thr Asn Gln Val Asn Ser Gly Gly Val Leu
 195 200 205
 Leu Arg Leu Gln Val Gly Glu Glu Val Trp Leu Ala Val Asn Asp Tyr
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<210> 5655
 <211> 3810
 <212> DNA
 <213> Homo sapiens

<400> 5655
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<210> 5656

<211> 987

<212> PRT

<213> Homo sapiens

<400> 5656

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			20					25					30		
Ala	Glu	Val	Arg	Arg	Glu	Trp	Ala	Lys	Tyr	Met	Glu	Val	His	Glu	Lys
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Ala	Ser	Phe	Thr	Asn	Ser	Glu	Leu	His	Arg	Ala	Met	Asn	Leu	His	Val
	50					55					60				
Gly	Asn	Leu	Arg	Leu	Leu	Ser	Gly	Pro	Leu	Asp	Gln	Val	Arg	Ala	Ala
65				70					75					80	
Leu	Pro	Thr	Pro	Ala	Leu	Ser	Pro	Glu	Asp	Lys	Ala	Val	Leu	Gln	Asn
			85					90					95		
Leu	Lys	Arg	Ile	Leu	Ala	Lys	Val	Gln	Glu	Met	Arg	Asp	Gln	Arg	Val
		100					105					110			
Ser	Leu	Glu	Gln	Gln	Leu	Arg	Glu	Leu	Ile	Gln	Lys	Asp	Asp	Ile	Thr
	115					120						125			
Ala	Ser	Leu	Val	Thr	Thr	Asp	His	Ser	Glu	Met	Lys	Lys	Leu	Phe	Glu
	130					135					140				
Glu	Gln	Leu	Lys	Lys	Tyr	Asp	Gln	Leu	Lys	Val	Tyr	Leu	Glu	Gln	Asn
145				150					155					160	
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Gln	Tyr	Ala	Ala	Val	Arg	Arg	Val	Leu	Ser	Asp	Leu	Asp	Gln	Lys	Trp
		180					185					190			
Asn	Ser	Thr	Leu	Gln	Thr	Leu	Val	Ala	Ser	Tyr	Glu	Ala	Tyr	Glu	Asp
	195					200						205			
Leu	Met	Lys	Lys	Ser	Gln	Glu	Gly	Arg	Asp	Phe	Tyr	Ala	Asp	Leu	Glu
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Ser	Lys	Val	Ala	Ala	Leu	Leu	Glu	Arg	Thr	Gln	Ser	Thr	Cys	Gln	Ala

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Glu Ser Glu Ala Val Glu Ala Gly Asp Pro Pro Glu Glu Leu Arg Ser
          275          280          285
Leu Pro Pro Asp Met Val Ala Gly Pro Arg Leu Pro Asp Thr Phe Leu
          290          295          300
Gly Ser Ala Thr Pro Leu His Phe Pro Pro Ser Pro Phe Pro Ser Ser
305          310          315          320
Thr Gly Pro Gly Pro His Tyr Leu Ser Gly Pro Leu Pro Pro Gly Thr
          325          330          335
Tyr Ser Gly Pro Thr Gln Leu Ile Gln Pro Arg Ala Pro Gly Pro His
          340          345          350
Ala Met Pro Val Ala Pro Gly Pro Ala Leu Tyr Pro Ala Pro Ala Tyr
          355          360          365
Thr Pro Glu Leu Gly Leu Val Pro Arg Ser Ser Pro Gln His Gly Val
          370          375          380
Val Ser Ser Pro Tyr Val Gly Val Gly Pro Ala Pro Pro Val Ala Gly
385          390          395          400
Leu Pro Ser Ala Pro Pro Pro Gln Phe Ser Gly Pro Glu Leu Ala Met
          405          410          415
Ala Val Arg Pro Ala Thr Thr Thr Val Asp Ser Ile Gln Ala Pro Ile
          420          425          430
Pro Ser His Thr Ala Pro Arg Pro Asn Pro Thr Pro Ala Pro Pro Pro
          435          440          445
Pro Cys Phe Pro Val Pro Pro Pro Gln Pro Leu Pro Thr Pro Tyr Thr
          450          455          460
Tyr Pro Ala Gly Ala Lys Gln Pro Ile Pro Ala Gln His His Phe Ser
465          470          475          480
Ser Gly Ile Pro Thr Gly Phe Pro Ala Pro Arg Ile Gly Pro Gln Pro
          485          490          495
Gln Pro His Pro Gln Pro His Pro Ser Gln Ala Phe Gly Pro Gln Pro
          500          505          510
Pro Gln Gln Pro Leu Pro Leu Gln His Pro His Leu Phe Pro Pro Gln
          515          520          525
Ala Pro Gly Leu Leu Pro Pro Gln Ser Pro Tyr Pro Tyr Ala Pro Gln
          530          535          540
Pro Gly Val Leu Gly Gln Pro Pro Pro Pro Leu His Thr Gln Leu Tyr
545          550          555          560
Pro Gly Pro Ala Gln Asp Pro Leu Pro Ala His Ser Gly Ala Leu Pro
          565          570          575
Phe Pro Ser Pro Gly Pro Pro Gln Pro Pro His Pro Pro Leu Ala Tyr
          580          585          590
Gly Pro Ala Pro Ser Thr Arg Pro Met Gly Pro Gln Ala Ala Pro Leu
          595          600          605
Thr Ile Arg Gly Pro Ser Ser Ala Gly Gln Ser Thr Pro Ser Pro His
          610          615          620
Leu Val Pro Ser Pro Ala Pro Ser Pro Gly Pro Gly Pro Val Pro Pro
625          630          635          640
Arg Pro Pro Ala Ala Glu Pro Pro Pro Cys Leu Arg Arg Gly Ala Ala
          645          650          655
Ala Ala Asp Leu Leu Ser Ser Ser Pro Glu Ser Gln His Gly Gly Thr

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660										665					670				
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Ala	Ala	Glu	Gly	Arg	Arg	Pro	Gln	Ala	Leu	Arg	Leu	Ile	Glu	Arg	Asp				
		690				695					700								
Pro	Tyr	Glu	His	Pro	Glu	Arg	Leu	Arg	Gln	Leu	Gln	Gln	Glu	Leu	Glu				
705					710					715					720				
Ala	Phe	Arg	Gly	Gln	Leu	Gly	Asp	Val	Gly	Ala	Leu	Asp	Thr	Val	Trp				
				725					730					735					
Arg	Glu	Leu	Gln	Asp	Ala	Gln	Glu	His	Asp	Ala	Arg	Gly	Arg	Ser	Ile				
			740					745					750						
Ala	Ile	Ala	Arg	Cys	Tyr	Ser	Leu	Lys	Asn	Arg	His	Gln	Asp	Val	Met				
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Pro	Tyr	Asp	Ser	Asn	Arg	Val	Val	Leu	Arg	Ser	Gly	Lys	Asp	Asp	Tyr				
		770				775					780								
Ile	Asn	Ala	Ser	Cys	Val	Glu	Gly	Leu	Ser	Pro	Tyr	Cys	Pro	Pro	Leu				
785					790					795					800				
Val	Ala	Thr	Gln	Ala	Pro	Leu	Pro	Gly	Thr	Ala	Ala	Asp	Phe	Trp	Leu				
				805					810					815					
Met	Val	His	Glu	Gln	Lys	Val	Ser	Val	Ile	Val	Met	Leu	Val	Ser	Glu				
			820					825					830						
Ala	Glu	Met	Glu	Lys	Gln	Lys	Val	Ala	Arg	Tyr	Phe	Pro	Thr	Glu	Arg				
		835					840					845							
Gly	Gln	Pro	Met	Val	His	Gly	Ala	Leu	Ser	Leu	Ala	Leu	Ser	Ser	Val				
		850				855					860								
Arg	Ser	Thr	Glu	Thr	His	Val	Glu	Arg	Val	Leu	Ser	Leu	Gln	Phe	Arg				
865					870					875					880				
Asp	Gln	Ser	Leu	Lys	Arg	Ser	Leu	Val	His	Leu	His	Phe	Pro	Thr	Trp				
				885					890					895					
Pro	Glu	Leu	Gly	Leu	Pro	Asp	Ser	Pro	Ser	Asn	Leu	Leu	Arg	Phe	Ile				
			900					905					910						
Gln	Glu	Val	His	Ala	His	Tyr	Leu	His	Gln	Arg	Pro	Leu	His	Thr	Pro				
		915					920					925							
Ile	Ile	Val	His	Cys	Ser	Ser	Gly	Val	Gly	Arg	Thr	Gly	Ala	Phe	Ala				
	930						935				940								
Leu	Leu	Tyr	Ala	Ala	Val	Gln	Glu	Val	Glu	Ala	Gly	Asn	Gly	Ile	Pro				
945					950					955					960				
Glu	Leu	Pro	Gln	Leu	Val	Arg	Arg	Met	Arg	Gln	Gln	Arg	Lys	His	Met				
				965					970					975					
Leu	Gln	Glu	Lys	Leu	His	Leu	Arg	Xaa	Leu	Leu									
			980					985											

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<210> 5657
<211> 1020
<212> DNA
<213> Homo sapiens
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<400> 5657
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60
ggcaagaact gcaccgcagg cgccgtctac acctaccacg agaagaagaa ggacacagcg
120
gcctcgggct atgggaccca gaacattcga ctgagccggg atgccgtgaa ggacttcgac
180
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tgctgttgtc tctccctgca gccttgccac gatcctgttg tcaccccaga tggctacctg
 240
 tatgagcgtg aggccatcct ggagtacatt ctgcaccaga agaaggagat tgcccggcag
 300
 atgaaggcct acgagaagca gcggggcacc cggcgcgagg agcagaagga gcttcagcgg
 360
 gcggcctcgc aggaccatgt gcggggcttc ctggagaagg agtcggctat cgtgagccgg
 420
 cccctcaacc ctttcacagc caaggccctc tcgggcacca gccagatga tgtccaacct
 480
 gggcccagtg tgggtcctcc aagtaaggac aaggacaaag tgctgcccag cttctggatc
 540
 ccgtcgtgta cgcgcgaagc caaggccacc aagctggaga agccgtcccg cacggtgacc
 600
 tgcccatgt caggggaagcc cctgcgcgtg tcggacctga cgcccgtgca cttcacaccg
 660
 ctagacagct ccgtggaccg cgtggggctc atcacccgca gcgagcgcta cgtgtgtgcc
 720
 gtgaccgcg acagcctgag caacgccacc ccctgcgctg tgctgcggcc ctctggggct
 780
 gtggtcaccc tcgaatgcgt ggagaagctg attcggaagg acatggtgga ccctgtgact
 840
 ggagacaaac tcacagaccg cgacatcatc gtgctgcagc ggggcggtac cggcttcgcg
 900
 ggctccggag tgaagctgca agcggagaaa tcacggccgg tgatgcaggc ctgagtgtgt
 960
 gcgggagacc aaataaaccg gcttgggtgc gcaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1020

<210> 5658

<211> 301

<212> PRT

<213> Homo sapiens

<400> 5658

Met	Thr	Arg	His	Gly	Lys	Asn	Cys	Thr	Ala	Gly	Ala	Val	Tyr	Thr	Tyr
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His	Glu	Lys	Lys	Lys	Asp	Thr	Ala	Ala	Ser	Gly	Tyr	Gly	Thr	Gln	Asn
			20					25						30	
Ile	Arg	Leu	Ser	Arg	Asp	Ala	Val	Lys	Asp	Phe	Asp	Cys	Cys	Cys	Leu
		35					40						45		
Ser	Leu	Gln	Pro	Cys	His	Asp	Pro	Val	Val	Thr	Pro	Asp	Gly	Tyr	Leu
		50				55					60				
Tyr	Glu	Arg	Glu	Ala	Ile	Leu	Glu	Tyr	Ile	Leu	His	Gln	Lys	Lys	Glu
65					70				75					80	
Ile	Ala	Arg	Gln	Met	Lys	Ala	Tyr	Glu	Lys	Gln	Arg	Gly	Thr	Arg	Arg
			85					90						95	
Glu	Glu	Gln	Lys	Glu	Leu	Gln	Arg	Ala	Ala	Ser	Gln	Asp	His	Val	Arg
			100					105					110		
Gly	Phe	Leu	Glu	Lys	Glu	Ser	Ala	Ile	Val	Ser	Arg	Pro	Leu	Asn	Pro
		115				120						125			
Phe	Thr	Ala	Lys	Ala	Leu	Ser	Gly	Thr	Ser	Pro	Asp	Asp	Val	Gln	Pro
		130				135					140				
Gly	Pro	Ser	Val	Gly	Pro	Pro	Ser	Lys	Asp	Lys	Asp	Lys	Val	Leu	Pro

145					150					155					160
Ser	Phe	Trp	Ile	Pro	Ser	Leu	Thr	Pro	Glu	Ala	Lys	Ala	Thr	Lys	Leu
				165					170					175	
Glu	Lys	Pro	Ser	Arg	Thr	Val	Thr	Cys	Pro	Met	Ser	Gly	Lys	Pro	Leu
			180					185					190		
Arg	Met	Ser	Asp	Leu	Thr	Pro	Val	His	Phe	Thr	Pro	Leu	Asp	Ser	Ser
			195				200					205			
Val	Asp	Arg	Val	Gly	Leu	Ile	Thr	Arg	Ser	Glu	Arg	Tyr	Val	Cys	Ala
	210					215				220					
Val	Thr	Arg	Asp	Ser	Leu	Ser	Asn	Ala	Thr	Pro	Cys	Ala	Val	Leu	Arg
225					230					235					240
Pro	Ser	Gly	Ala	Val	Val	Thr	Leu	Glu	Cys	Val	Glu	Lys	Leu	Ile	Arg
				245					250					255	
Lys	Asp	Met	Val	Asp	Pro	Val	Thr	Gly	Asp	Lys	Leu	Thr	Asp	Arg	Asp
			260					265					270		
Ile	Ile	Val	Leu	Gln	Arg	Gly	Gly	Thr	Gly	Phe	Ala	Gly	Ser	Gly	Val
		275				280						285			
Lys	Leu	Gln	Ala	Glu	Lys	Ser	Arg	Pro	Val	Met	Gln	Ala			
	290					295					300				

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<210> 5659
<211> 1263
<212> DNA
<213> Homo sapiens
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<400> 5659
nttttaaaac gtaattatattt aattctgaga ctctgggaga gggggccttag atctctgctt
60
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120
tcagagaagg cttagatcta tgcattgggt gttattctca gatgcagaga tgtaaagcc
180
atttttctct tctgttttca ggtcacatgt gccaatttaa cgaacgggtg aaagtcagaa
240
cttctgaaat caggaagcag caaatccaca ctaaagcaca tatggacaga aagcagcaaa
300
gacttgtcta tcagccgact cctgtcacag acttttcgtg gcaaagagaa tgatacagat
360
ttggacctga gatatgacac ccagaaacct tattctgagc aagacctctg ggactggctg
420
aggaactcca cagaccttca agagcctcgg ccaggggcca agagaaggcc cattgttaaa
480
acgggcaagt ttaagaaaat gtttggatgg ggcgattttc attccaacat caaaacagtg
540
aagctgaacc tgttgataac tgggaaaatt gtagatcatg gcaatgggac atttagtggt
600
tatttcaggc ataattcaac tgggtcaaggg aatgtatctg tcagcttggt accccctaca
660
aaaatcgtgg aatttgactt ggcacaacaa accgtgattg atgccaaaga ttccaagtct
720
tttaattgtc gcattgaata tgaaaagggt gacaaggcta ccaagaacac actctgcaac
780
tatgaccctt caaaaacctg ttaccaggag caaacccaaa gtcatgtatc ctggctctgc
840

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tccaagccct ttaagggtgat ctgtattttac atttcctttt atagtacaga ttataaactg
 900
 gtacagaaag tgtgccctga ctacaactac cacagtgaca caccttactt tccctcggga
 960
 tgaagggtgaa catgggggtg agactgaagc ctgaggaatt aaaggtcata tgacagggct
 1020
 gttacctcaa agaagaagggt cacatctgtt gcctggaatg tgtctacact gctgctcttg
 1080
 tcaactggct gcaaaatata ctagtggaaa acactctgat gtaatttctg cccagtcagc
 1140
 ttcacccctc agtataattg taaatcatca cagattttga attcacacct gaagacatgc
 1200
 tctcacatat agaggtacac aaacacaccg tcatgcacat ttcagcttgc gtctatcatg
 1260
 att
 1263

<210> 5660

<211> 253

<212> PRT

<213> Homo sapiens

<400> 5660

Val	Thr	Cys	Ala	Asn	Leu	Thr	Asn	Gly	Gly	Lys	Ser	Glu	Leu	Leu	Lys
1				5					10					15	
Ser	Gly	Ser	Ser	Lys	Ser	Thr	Leu	Lys	His	Ile	Trp	Thr	Glu	Ser	Ser
			20					25					30		
Lys	Asp	Leu	Ser	Ile	Ser	Arg	Leu	Leu	Ser	Gln	Thr	Phe	Arg	Gly	Lys
	35						40					45			
Glu	Asn	Asp	Thr	Asp	Leu	Asp	Leu	Arg	Tyr	Asp	Thr	Pro	Glu	Pro	Tyr
	50					55					60				
Ser	Glu	Gln	Asp	Leu	Trp	Asp	Trp	Leu	Arg	Asn	Ser	Thr	Asp	Leu	Gln
	65				70					75				80	
Glu	Pro	Arg	Pro	Arg	Ala	Lys	Arg	Arg	Pro	Ile	Val	Lys	Thr	Gly	Lys
				85					90					95	
Phe	Lys	Lys	Met	Phe	Gly	Trp	Gly	Asp	Phe	His	Ser	Asn	Ile	Lys	Thr
			100					105					110		
Val	Lys	Leu	Asn	Leu	Leu	Ile	Thr	Gly	Lys	Ile	Val	Asp	His	Gly	Asn
		115					120					125			
Gly	Thr	Phe	Ser	Val	Tyr	Phe	Arg	His	Asn	Ser	Thr	Gly	Gln	Gly	Asn
	130					135					140				
Val	Ser	Val	Ser	Leu	Val	Pro	Pro	Thr	Lys	Ile	Val	Glu	Phe	Asp	Leu
	145				150					155					160
Ala	Gln	Gln	Thr	Val	Ile	Asp	Ala	Lys	Asp	Ser	Lys	Ser	Phe	Asn	Cys
				165					170					175	
Arg	Ile	Glu	Tyr	Glu	Lys	Val	Asp	Lys	Ala	Thr	Lys	Asn	Thr	Leu	Cys
		180						185				190			
Asn	Tyr	Asp	Pro	Ser	Lys	Thr	Cys	Tyr	Gln	Glu	Gln	Thr	Gln	Ser	His
	195						200					205			
Val	Ser	Trp	Leu	Cys	Ser	Lys	Pro	Phe	Lys	Val	Ile	Cys	Ile	Tyr	Ile
	210					215					220				
Ser	Phe	Tyr	Ser	Thr	Asp	Tyr	Lys	Leu	Val	Gln	Lys	Val	Cys	Pro	Asp
	225				230					235				240	
Tyr	Asn	Tyr	His	Ser	Asp	Thr	Pro	Tyr	Phe	Pro	Ser	Gly			

245

250

<210> 5661
 <211> 578
 <212> DNA
 <213> Homo sapiens

<400> 5661
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 actggatgcc ttggagcatg caagtccaga gcaccctggg agccctgggtg catgggaccc
 120
 ataaccctagt gcacggcaag gaccagcag gaagcaccag ccaactggccc cgacctcccc
 180
 caccaggac ctgacgggca cctagacaca cacagtggcc tgagctccaa ctccagcatg
 240
 accacgctgg agcttcagca gtactggcag aaccagaaat gccgctggaa gcacgtcaaa
 300
 ctgctctttg agatcgcttc agctcgcatc gaggagagaa aagtctctaa gtttgtgatg
 360
 gggaaatcaa ggcttgaga gatgacttat ccagggtcac gtggcgagac agggacagca
 420
 ccagaaccag acccgagatg tccacgtcaa agtgacatgc tctgagaggc agcacacaca
 480
 gaataaccct gcatccaaat tccaggaagc tcttaggggt catccagctg ggcttagggg
 540
 tgcagggtca gtgctgaggc ctgggcaggg ccgctagc
 578

<210> 5662
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 5662
 Met Thr Leu Leu Pro Asp Pro Trp Thr His Thr Ala Leu Gly Thr Gly
 1 5 10 15
 Cys Leu Gly Ala Cys Lys Ser Arg Ala Pro Trp Glu Pro Trp Cys Met
 20 25 30
 Gly Pro Ile Thr Gln Cys Thr Ala Arg Thr Gln Gln Glu Ala Pro Ala
 35 40 45
 Thr Gly Pro Asp Leu Pro His Pro Gly Pro Asp Gly His Leu Asp Thr
 50 55 60
 His Ser Gly Leu Ser Ser Asn Ser Ser Met Thr Thr Arg Glu Leu Gln
 65 70 75 80
 Gln Tyr Trp Gln Asn Gln Lys Cys Arg Trp Lys His Val Lys Leu Leu
 85 90 95
 Phe Glu Ile Ala Ser Ala Arg Ile Glu Glu Arg Lys Val Ser Lys Phe
 100 105 110
 Val Met Gly Lys Ser Arg Pro Gly Glu Met Thr Tyr Pro Gly Ser Arg
 115 120 125
 Gly Glu Thr Gly Thr Ala Pro Glu Pro Asp Pro Arg Cys Pro Arg Gln
 130 135 140
 Ser Asp Met Leu

145

<210> 5663

<211> 857

<212> DNA

<213> Homo sapiens

<400> 5663

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tttttttttt tttttttgca gtaagtaact cagaatgact ttactcagga aatatgacca
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tgactcactg gctaggagtg ccccatgccc agttcttaga gacccttgat agtccttaga
120
agacaggagg ctgccgtggg caagaagggc caagccttga agtctcacgg caccctctgt
180
gggtggaggta taaggctcag gggccaacta ctgggtcttg cagtcccat cggtgctgtg
240
ggctgtcttc accttcttta gttccttctg tagctcagac tcggccacca caacctcctt
300
tggtcttctgg taagagatga tcagggtgca gttggcgtgg gcaaagctca gcaaggcgtc
360
atccagagggt agctggtgtc tatctagatc aggaatggag aacttcttgt agtacttctt
420
gttggttggt ctgacaatga tgcagcgtc cttctggtcc acagagacac tatagacatc
480
cttaggatag gggagggttc gaatccgcca ctggaaactc atcttggtgt ccttgcgcat
540
gaagatagga ttggcattgc tttccttgat gagttcaggc cccagggtcc ctgctcctag
600
gggcgctggg tctcctactt caagctgcca ctggcccatg gctcccaggg cacttttcac
660
acgccacttt ctacaagta gttcactcgt cttctcgtca tattcttcag ccatttcctt
720
gccgtctggg aataaatagt gaaccttcct tctcccgccc tgcagcagcg cagtcttctg
780
ggctgtccgc agactctcca accagcccgt caccgccatc tttccctgc taagcagcac
840
gccagccgc tgccatg
857

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<210> 5664

<211> 203

<212> PRT

<213> Homo sapiens

<400> 5664

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Met Ala Val Thr Gly Trp Leu Glu Ser Leu Arg Thr Ala Gln Lys Thr
1           5           10           15
Ala Leu Leu Gln Asp Gly Arg Arg Lys Val His Tyr Leu Phe Pro Asp
20           25           30
Gly Lys Glu Met Ala Glu Glu Tyr Asp Glu Lys Thr Ser Glu Leu Leu
35           40           45
Val Arg Lys Trp Arg Val Lys Ser Ala Leu Gly Ala Met Gly Gln Trp
50           55           60
Gln Leu Glu Val Gly Asp Pro Ala Pro Leu Gly Ala Gly Asn Leu Gly

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65          70          75          80
Pro Glu Leu Ile Lys Glu Ser Asn Ala Asn Pro Ile Phe Met Arg Lys
          85          90          95
Asp Thr Lys Met Ser Phe Gln Trp Arg Ile Arg Asn Leu Pro Tyr Pro
          100          105          110
Lys Asp Val Tyr Ser Val Ser Val Asp Gln Lys Glu Arg Cys Ile Ile
          115          120          125
Val Arg Thr Thr Asn Lys Lys Tyr Tyr Lys Lys Phe Ser Ile Pro Asp
          130          135          140
Leu Asp Arg His Gln Leu Pro Leu Asp Asp Ala Leu Leu Ser Phe Ala
          145          150          155          160
His Ala Asn Cys Thr Leu Ile Ile Ser Tyr Gln Lys Pro Lys Glu Val
          165          170          175
Val Val Ala Glu Ser Glu Leu Gln Lys Glu Leu Lys Lys Val Lys Thr
          180          185          190
Ala His Ser Asn Asp Gly Asp Cys Lys Thr Gln
          195          200

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<210> 5665

<211> 531

<212> DNA

<213> Homo sapiens

<400> 5665

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120
cagcggccct ctgaagtcac ttgcttcacg gaggtgttac tgtctgctgc tggacagagc
180
atgatggggg ctgcaagggc tccctcaaac cctggactcc tccaacagag ggctcctggt
240
tgccaggtc agctctgccc tgcgtcgccc ccagggcgta gggaggggtgt ttaatcctgg
300
ccccggcctt ccccgaggt ggagcgcgtg tcgcacccgc tgctgcagca gcagtatgag
360
ctgtaccggg agcgctgct gcagcgatgc gagcggcgcc cggtggagca ggtgctgtac
420
cacggcacga cggcaccggc agtgcctgac atctgcgccc acggcttcaa ccgcagcttc
480
tgcgcccgca acgccacggt ctacgggaag ggcgtgtatt tcgccaggcg c
531

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<210> 5666

<211> 79

<212> PRT

<213> Homo sapiens

<400> 5666

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Ser Trp Pro Gly Pro Ser Pro Gln Val Glu Arg Val Ser His Pro Leu
1          5          10          15
Leu Gln Gln Gln Tyr Glu Leu Tyr Arg Glu Arg Leu Leu Gln Arg Cys
          20          25          30
Glu Arg Arg Pro Val Glu Gln Val Leu Tyr His Gly Thr Thr Ala Pro

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35 40 45
 Ala Val Pro Asp Ile Cys Ala His Gly Phe Asn Arg Ser Phe Cys Gly
 50 55 60
 Arg Asn Ala Thr Val Tyr Gly Lys Gly Val Tyr Phe Ala Arg Arg
 65 70 75

 <210> 5667
 <211> 858
 <212> DNA
 <213> Homo sapiens

 <400> 5667
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 aagaaagata tgacatttct acatgaagga aatgactcca aagtagatgg tttagtaaac
 120
 tttgagaagt taagaatgat ttccaaggaa atccgccaag ttgttcgaat gacttctgct
 180
 aacatggacc cagctatgat gtttcgacag aggtcactga gtcaaggaag cacaaattca
 240
 aacatgctgg atgttcaggg aggtgctcac aaaaaaaggg cacgccgcag ctctctgctt
 300
 aatgccaaaga agctatatga ggatgccc aa atggcaagga aggtgaagca gtatctttcc
 360
 agtctcgatg tagagacaga tgaggagaag ttccagatga tgtcattaca gntggagcct
 420
 gcatatggta cctgtgagta caagttttca tttatgtgac gctaaagagc acaacaaaat
 480
 aaaaacttat ttctctagaa ttatacctaa gtcccaagaa aattaacttt cactcacaaa
 540
 agattgctgg cataccttaa gcatcatgtg atccaattaa tcacagactg aatcccatcc
 600
 attcctgatg gctacactat ccaaaaaata gagggataag tagatcttta aaaagctttt
 660
 taattctttt aaaaactgga tcattataga ggaggctttc tgtttgagaa catttttata
 720
 ttcatcccta aagagtaaac ataagtggaa tttttacctc tttttatttc atggataata
 780
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 840
 aggtgccagt agtaaggt
 858

<210> 5668
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 5668
 Xaa Ser Ala Arg Gly Ser Gln Ser Met Gln Pro Pro Ile Ile Pro Leu
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 Phe Pro Val Val Lys Lys Asp Met Thr Phe Leu His Glu Gly Asn Asp
 20 25 30
 Ser Lys Val Asp Gly Leu Val Asn Phe Glu Lys Leu Arg Met Ile Ser

35						40					45					
Lys	Glu	Ile	Arg	Gln	Val	Val	Arg	Met	Thr	Ser	Ala	Asn	Met	Asp	Pro	
50						55					60					
Ala	Met	Met	Phe	Arg	Gln	Arg	Ser	Leu	Ser	Gln	Gly	Ser	Thr	Asn	Ser	
65						70					75					
Asn	Met	Leu	Asp	Val	Gln	Gly	Gly	Ala	His	Lys	Lys	Arg	Ala	Arg	Arg	
85						90					95					
Ser	Ser	Leu	Leu	Asn	Ala	Lys	Lys	Leu	Tyr	Glu	Asp	Ala	Gln	Met	Ala	
100						105					110					
Arg	Lys	Val	Lys	Gln	Tyr	Leu	Ser	Ser	Leu	Asp	Val	Glu	Thr	Asp	Glu	
115						120					125					
Glu	Lys	Phe	Gln	Met	Met	Ser	Leu	Gln	Xaa	Glu	Pro	Ala	Tyr	Gly	Thr	
130						135					140					
Cys	Glu	Tyr	Lys	Phe	Ser	Phe	Met									
145						150										

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<210> 5669
<211> 1842
<212> DNA
<213> Homo sapiens
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<400> 5669
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120
gccatgatgc gcagctccat agagaggggc aaatgggtct tcttcagaa ctgccacctg
180
gcaccaagct ggatgccagc cctagaacgc ctcatcgagc acatcaaccc cgacaaggta
240
cacagggact tccgcctctg gctcaccagc ctgcccagca acaagttccc agtgtccatc
300
ctgcagaacg gctccaagat gaccattgag ccgccacgcg gtgtcagggc caacctgctg
360
aagtccata gtagccttgg tgaagacttc ctcaactcct gccacaaggt gatggagttc
420
aagtctctgc tgctgtctct gtgcttggtc catgggaacg ccctggagcg ccgtaagttt
480
gggcccctgg gcttcaacat cccctatgag ttcacggatg gagatctgcg catctgcatc
540
agccagctca agatgttcct ggacgaatat gatgacatcc cctacaaggt cctcaagtac
600
acggcagggg agatcaatta cgggggccgt gtcactgatg actgggaccg gcgctgcatc
660
atgaacatct tggaggactt ctacaaccct gacgtgctct cccctgagca cagctacagc
720
gcctcgggca tctaccacca gatcccgctt acctacgacc tccacggcta cctctcctac
780
atcaagagcc tcccactcaa tgatatgctt gagatctttg gcctgcatga caatgccaac
840
atcacctttg ccagaaacga gacgttcgcc ctctggggca ccatcatcca gctgcaaccc
900
aaatcatctt ctgcaggcag ccaggggccgg gaggagatag tggaggacgt caccctaaac
960

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attctgctca aggtgcctga gcctatcaac ttgcaatggg tgatggccaa gtacccagtg
 1020
 ctgtatgagg aatcaatgaa cacagtacta gtacaagagg tcattaggta caatcggctg
 1080
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 1140
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<210> 5670

<211> 591

<212> PRT

<213> Homo sapiens

<400> 5670

Phe	Val	Leu	Ser	Pro	Gly	Thr	Asp	Pro	Ala	Ala	Asp	Leu	Tyr	Lys	Phe
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Ala	Glu	Glu	Met	Lys	Phe	Ser	Lys	Lys	Leu	Ser	Ala	Ile	Ser	Leu	Gly
		20						25					30		
Gln	Gly	Gln	Gly	Pro	Arg	Ala	Glu	Ala	Met	Met	Arg	Ser	Ser	Ile	Glu
		35					40					45			
Arg	Gly	Lys	Trp	Val	Phe	Phe	Gln	Asn	Cys	His	Leu	Ala	Pro	Ser	Trp
		50				55					60				
Met	Pro	Ala	Leu	Glu	Arg	Leu	Ile	Glu	His	Ile	Asn	Pro	Asp	Lys	Val
65					70					75				80	
His	Arg	Asp	Phe	Arg	Leu	Trp	Leu	Thr	Ser	Leu	Pro	Ser	Asn	Lys	Phe
			85					90					95		
Pro	Val	Ser	Ile	Leu	Gln	Asn	Gly	Ser	Lys	Met	Thr	Ile	Glu	Pro	Pro
			100				105						110		
Arg	Gly	Val	Arg	Ala	Asn	Leu	Leu	Lys	Ser	Tyr	Ser	Ser	Leu	Gly	Glu
		115				120						125			
Asp	Phe	Leu	Asn	Ser	Cys	His	Lys	Val	Met	Glu	Phe	Lys	Ser	Leu	Leu

130		135		140
Leu Ser Leu Cys Leu Phe His Gly Asn Ala Leu Glu Arg Arg Lys Phe				
145		150		155
Gly Pro Leu Gly Phe Asn Ile Pro Tyr Glu Phe Thr Asp Gly Asp Leu				
	165		170	175
Arg Ile Cys Ile Ser Gln Leu Lys Met Phe Leu Asp Glu Tyr Asp Asp				
	180		185	190
Ile Pro Tyr Lys Val Leu Lys Tyr Thr Ala Gly Glu Ile Asn Tyr Gly				
	195		200	205
Gly Arg Val Thr Asp Asp Trp Asp Arg Arg Cys Ile Met Asn Ile Leu				
	210		215	220
Glu Asp Phe Tyr Asn Pro Asp Val Leu Ser Pro Glu His Ser Tyr Ser				
225		230		235
Ala Ser Gly Ile Tyr His Gln Ile Pro Pro Thr Tyr Asp Leu His Gly				
	245		250	255
Tyr Leu Ser Tyr Ile Lys Ser Leu Pro Leu Asn Asp Met Pro Glu Ile				
	260		265	270
Phe Gly Leu His Asp Asn Ala Asn Ile Thr Phe Ala Gln Asn Glu Thr				
	275		280	285
Phe Ala Leu Leu Gly Thr Ile Ile Gln Leu Gln Pro Lys Ser Ser Ser				
	290		295	300
Ala Gly Ser Gln Gly Arg Glu Glu Ile Val Glu Asp Val Thr Gln Asn				
305		310		315
Ile Leu Leu Lys Val Pro Glu Pro Ile Asn Leu Gln Trp Val Met Ala				
	325		330	335
Lys Tyr Pro Val Leu Tyr Glu Glu Ser Met Asn Thr Val Leu Val Gln				
	340		345	350
Glu Val Ile Arg Tyr Asn Arg Leu Leu Gln Val Ile Thr Gln Thr Leu				
	355		360	365
Gln Asp Leu Leu Lys Ala Leu Lys Gly Leu Val Val Met Ser Ser Gln				
	370		375	380
Leu Glu Leu Met Ala Ala Ser Leu Tyr Asn Asn Thr Val Pro Glu Leu				
385		390		395
Trp Ser Ala Lys Ala Tyr Pro Ser Leu Lys Pro Leu Ser Ser Trp Val				
	405		410	415
Met Asp Leu Leu Gln Arg Leu Asp Phe Leu Gln Ala Trp Ile Gln Asp				
	420		425	430
Gly Ile Pro Ala Val Phe Trp Ile Ser Gly Phe Phe Phe Pro Gln Ala				
	435		440	445
Phe Leu Thr Gly Thr Leu Gln Asn Phe Ala Arg Lys Phe Val Ile Ser				
	450		455	460
Ile Asp Thr Ile Ser Phe Asp Phe Lys Val Met Phe Glu Ala Pro Ser				
465		470		475
Glu Leu Thr Gln Arg Pro Gln Val Gly Cys Tyr Ile His Gly Leu Phe				
	485		490	495
Leu Glu Gly Ala Arg Trp Asp Pro Glu Ala Phe Gln Leu Ala Glu Ser				
	500		505	510
Gln Pro Lys Glu Leu Tyr Thr Glu Met Ala Val Ile Trp Leu Leu Pro				
	515		520	525
Thr Pro Asn Arg Lys Ala Gln Asp Gln Asp Phe Tyr Leu Cys Pro Ile				
	530		535	540
Tyr Lys Thr Leu Thr Arg Ala Gly Thr Leu Ser Thr Thr Gly His Ser				
545		550		555
Thr Asn Tyr Val Ile Ala Val Glu Ile Pro Thr His Gln Pro Gln Arg				

565 570 575
 His Trp Ile Lys Arg Gly Val Ala Leu Ile Cys Ala Leu Asp Tyr
 580 585 590
 <210> 5671
 <211> 818
 <212> DNA
 <213> Homo sapiens
 <400> 5671
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 120
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 180
 tgtgggtatg gggtttatcc tgccgagaag atcagctgta tagatcagat atggcataaa
 240
 gcctgttttc actgtgaagt ttgcaagatg atgctgtctg ttaataactt tgtgagtcac
 300
 cagaaaaagc cgtactgtca cgcccataac cctaagaaca acactttcac cagtgtctat
 360
 cacactccat taaatctaaa tgtgaggaca tttccagagg ccatcagtg gatccatgac
 420
 caagaagatg gtgaacagt taaatcagtt tttcattggg acatgaaatc caaggataag
 480
 gaaggtgcac ctaacaggca gccactggca aatgagagag cctattggac tggatatggg
 540
 gaagggaatg cttggtgccc aggagctctg ccagaccccg aaattgtaag gatggttgag
 600
 gctcgaaagt ctcttggtga ggaatataca gaagactatg agcaaccag gggcaagggg
 660
 agctttccag ccatgatcac acctgcttat caaagggcc aaaaagccaa ccagctggcc
 720
 agccaagtgg agtataagag agggcatgat gaacgcatct ccagggtctc cacggtggcg
 780
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 818

<210> 5672
 <211> 220
 <212> PRT
 <213> Homo sapiens

<400> 5672
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 Glu Lys Ile Ser Cys Ile Asp Gln Ile Trp His Lys Ala Cys Phe His
 20 25 30
 Cys Glu Val Cys Lys Met Met Leu Ser Val Asn Asn Phe Val Ser His
 35 40 45
 Gln Lys Lys Pro Tyr Cys His Ala His Asn Pro Lys Asn Asn Thr Phe
 50 55 60
 Thr Ser Val Tyr His Thr Pro Leu Asn Leu Asn Val Arg Thr Phe Pro
 65 70 75 80

Glu Ala Ile Ser Gly Ile His Asp Gln Glu Asp Gly Glu Gln Cys Lys
 85 90 95
 Ser Val Phe His Trp Asp Met Lys Ser Lys Asp Lys Glu Gly Ala Pro
 100 105 110
 Asn Arg Gln Pro Leu Ala Asn Glu Arg Ala Tyr Trp Thr Gly Tyr Gly
 115 120 125
 Glu Gly Asn Ala Trp Cys Pro Gly Ala Leu Pro Asp Pro Glu Ile Val
 130 135 140
 Arg Met Val Glu Ala Arg Lys Ser Leu Gly Glu Glu Tyr Thr Glu Asp
 145 150 155 160
 Tyr Glu Gln Pro Arg Gly Lys Gly Ser Phe Pro Ala Met Ile Thr Pro
 165 170 175
 Ala Tyr Gln Arg Ala Lys Lys Ala Asn Gln Leu Ala Ser Gln Val Glu
 180 185 190
 Tyr Lys Arg Gly His Asp Glu Arg Ile Ser Arg Phe Ser Thr Val Ala
 195 200 205
 Asp Thr Pro Glu Leu Leu Arg Ser Lys Ala Trp Gly
 210 215 220

<210> 5673

<211> 1279

<212> DNA

<213> Homo sapiens

<400> 5673

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 120
 ccgagacgat aaaagaacag ttgggtgttt ataggatgcc ctcaaagtga gctgggctaag
 180
 tgagctgggc tctaacttca ctacaaaatt tatagtacag ctaagaaggc cagtctgtcc
 240
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 300
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 360
 cagcagcagg gacagccaag tgggaggcag gcatggtgca cacctgggga ggccctgggt
 420
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 480
 gcctctgcag ccctggcact gccgcccagc cctccatctc agcgggatgt gcagggtgag
 540
 acaggaatgc agggacgttc tgcccctagg tcagcctctt catccgcctg ttgtgcttcg
 600
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 660
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 720
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 780
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 840

gccagactga gcagctcttc tctgcggggg aagagggttct tgcgcttctg agcaccaatg
 900
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 960
 gcaccttggc agatatcaaa cgataggcca tgtctggctt tccaataaac cgctggcgga
 1020
 tgctaatttc gtaaggtagag tggaccttga tgcgtccac gtcttctctt tcaaacctgt
 1080
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 1140
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<210> 5674

<211> 81

<212> PRT

<213> Homo sapiens

<400> 5674

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Lys	Gly	Ser	Arg	Asp	Lys	Thr	Arg	Ala	Ala	Ser	Ser	Arg	Pro	Val	Pro
			20					25					30		
Ser	Val	Leu	Gly	Val	Pro	Pro	Trp	Ser	Thr	Leu	Leu	Gln	His	Pro	Gln
		35					40					45			
Asn	Met	Trp	Pro	Gly	Pro	Ala	Gln	Gln	Gln	Gly	Gln	Pro	Ser	Gly	Arg
	50					55				60					
Gln	Ala	Trp	Cys	Thr	Pro	Gly	Glu	Ala	Pro	Gly	Ala	Glu	Ala	Ala	Pro
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Gln															

<210> 5675

<211> 1074

<212> DNA

<213> Homo sapiens

<400> 5675

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 180
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 240
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 300
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 420
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 480
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 540
 aaccgcatgc ccagtgggta ctgcacggag ctgtaggagg tcacagtgt gtgtacaggg
 600
 ctgtcactgt ccatagggat gactgccacg tcgcagggct gccgtgctgg tggcagatgt
 660
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 720
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 1074

<210> 5676

<211> 145

<212> PRT

<213> Homo sapiens

<400> 5676

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Ala	Thr	Ser	Gln	Gly	Cys	Arg	Ala	Gly	Gly	Arg	Cys	Gly	Trp	Ala	Cys
			20					25					30		
Ala	Cys	Phe	Arg	Arg	Gln	Gln	Asn	Arg	Thr	Gln	Pro	Ala	Val	Thr	Pro
			35				40					45			
His	Ser	Arg	Ser	Arg	Arg	Thr	Ala	Ser	Arg	Met	Ser	Leu	Gly	Glu	Gln
	50				55					60					
Gly	Ser	Thr	Thr	Gly	Leu	Thr	Leu	Gly	His	Arg	Ala	Pro	Ala	Pro	Trp
65				70				75						80	
Gly	Met	Ser	Trp	His	Asn	His	Arg	Arg	Gln	Val	Asn	Arg	Ile	Lys	Ser
			85				90						95		
Arg	Gln	Cys	Leu	Ser	Met	Ser	Glu	Thr	Ala	Val	Ala	Arg	Ala	Trp	Pro
			100				105						110		
Arg	Ala	Ala	Gly	Pro	Ala	Leu	Ala	Ile	Ser	Pro	Gly	Leu	Ala	Arg	Gly
			115				120					125			
Gly	Leu	Gly	Leu	Thr	Pro	Arg	Thr	Arg	Cys	Pro	Gln	Arg	Val	Pro	His
	130					135						140			
Cys															
145															

<210> 5677

<211> 477

<212> DNA

<213> Homo sapiens

<400> 5677

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120
agggaaagca agatgcagca gtgaggccct ctctggtatc cattcattca cttcactcaa
180
cagctgttta tgaccatgag caatacaagc cttgtgaaga tcctggagca gggcacaagc
240
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300
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360
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477

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<210> 5678

<211> 151

<212> PRT

<213> Homo sapiens

<400> 5678

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Ala Ser Thr Ser Leu Ile Ser Ala Leu Val Val Phe Ser Ser Trp Cys
      20           25           30
Met Glu Trp Thr Ser Arg Tyr Phe His Met Gln Ile Arg Gly Arg Gly
      35           40           45
Ser Gly Gly Cys Gly Lys Lys Ala Asn Trp Gly Arg Gln Gln Gly Phe
      50           55           60
Ser Leu Glu Gln Thr Ser Ala Ala Cys Ala Leu Leu Gln Asp Leu His
      65           70           75           80
Lys Ala Cys Ile Ala His Gly His Lys Gln Leu Leu Ser Glu Val Asn
      85           90           95
Glu Trp Ile Pro Glu Arg Ala Ser Leu Leu His Leu Ala Phe Pro Thr
      100          105          110
Ser Asn Pro Leu Gly Gln Arg Gly Gly Val Leu Pro Leu Leu His Gln
      115          120          125
Cys Pro Phe Leu Pro Trp Ser Gln Ala Ala Ser Phe Gln His Arg Pro
      130          135          140
Leu Gln Arg Gly Thr Ala Ala
      145          150

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<210> 5679

<211> 665

<212> DNA

<213> Homo sapiens

<400> 5679

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 665

<210> 5680

<211> 143

<212> PRT

<213> Homo sapiens

<400> 5680

Val	Gly	Arg	Ile	Tyr	His	Glu	Glu	Gly	Gln	Glu	Glu	Lys	Val	Arg	Gly
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Gln	Thr	Pro	Pro	Asp	Ser	Thr	Ser	Gln	His	Ala	Gly	Ser	Asn	Ser	Thr
		20						25					30		
Ser	Gln	Gln	Pro	Ser	Pro	Glu	Ser	Thr	Pro	Gln	Gln	Pro	Ser	Pro	Glu
		35				40					45				
Ser	Thr	Pro	Gln	Gln	Pro	Ser	Pro	Glu	Ser	Thr	Pro	Gln	His	Ser	Ser
	50					55				60					
Leu	Glu	Thr	Thr	Ser	Arg	Gln	Pro	Ala	Phe	Gln	Ala	Leu	Pro	Ala	Pro
65				70				75						80	
Glu	Ile	Arg	Arg	Ser	Ser	Cys	Cys	Leu	Leu	Ser	Pro	Asp	Ala	Asn	Val
		85				90							95		
Lys	Ala	Ala	Pro	Gln	Ser	Arg	Lys	Ala	Glu	Asn	Leu	Gln	Glu	Asn	Pro
		100				105						110			
Pro	Val	Ile	Val	Thr	Arg	Val	Leu	Gln	Ala	Leu	Gly	Thr	Val	Ala	Val
	115					120					125				
Ala	Leu	Gly	Ala	Leu	Gly	Ala	Ala	Tyr	Tyr	Ile	Thr	Glu	Ser	Leu	
	130					135					140				

<210> 5681

<211> 1402

<212> DNA

<213> Homo sapiens

<400> 5681

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120
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180
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240
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420
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720
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780
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1140
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1260
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<210> 5682

<211> 190

<212> PRT

<213> Homo sapiens

<400> 5682

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      20             25             30
Asp Pro Lys Ile Thr Glu Tyr His Leu Leu Lys Leu Leu Gln Lys Phe
      35             40             45
Gly Lys Val Lys Gln Phe Asp Phe Leu Phe His Lys Ser Gly Ala Leu
      50             55             60
Glu Gly Gln Pro Arg Gly Tyr Cys Phe Val Asn Phe Glu Thr Lys Gln
65             70             75             80
Glu Ala Glu Gln Ala Ile Gln Cys Leu Asn Gly Lys Leu Ala Leu Ser
      85             90             95
Lys Lys Leu Val Val Arg Trp Ala His Ala Gln Val Lys Arg Tyr Asp
      100            105            110
His Asn Lys Asn Asp Lys Ile Leu Pro Ile Ser Leu Glu Pro Ser Ser
      115            120            125
Ser Thr Glu Pro Thr Gln Ser Asn Leu Ser Val Thr Ala Lys Ile Lys
      130            135            140
Ala Ile Glu Ala Lys Leu Lys Met Met Ala Glu Asn Pro Asp Ala Glu
145            150            155            160
Tyr Pro Ala Ala Pro Val Tyr Ser Tyr Phe Lys Pro Pro Asp Lys Lys
      165            170            175
Arg Thr Thr Pro Tyr Ser Arg Thr Ala Trp Lys Ser Arg Arg
      180            185            190

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<210> 5683

<211> 328

<212> DNA

<213> Homo sapiens

<400> 5683

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ggatccatgc gttgccctag ggaggcctca gctgtcaagc actgaccatc tctgcagaca
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120
atgcttttcag aaggcaccac atgtgatgca cagcctctat ttacatgtga ataattacac
180
tgctgctttc tgggttaaaag tagggaaata cagtgttcca gggcatagga atgggtgctct
240
gggtagaaaa gtttatattg ctgggtgggag gcagggttttg ttaataaagc tttgaaatac
300
acaaatttca ttctggatgc tgatgctg
328

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<210> 5684

<211> 103

<212> PRT

<213> Homo sapiens

<400> 5684

```

Met Lys Phe Val Tyr Phe Lys Ala Leu Leu Thr Lys Pro Ala Ser His

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```

      1             5             10             15
Gln Gln Asn Lys Leu Phe Tyr Pro Glu His His Ser Tyr Ala Leu Glu
      20             25             30
His Cys Ile Ser Leu Leu Leu Thr Arg Lys Gln Gln Cys Asn Tyr Ser
      35             40             45
His Val Asn Arg Gly Cys Ala Ser His Val Val Pro Ser Glu Ser Ile
      50             55             60
Gly Trp Ile Val Cys Val Pro Trp Leu Met Leu Thr His Gln Tyr Arg
      65             70             75             80
Ser Ala Leu Arg Val Cys Arg Asp Gly Gln Cys Leu Thr Ala Glu Ala
      85             90             95
Ser Leu Gly Gln Arg Met Asp
      100

```

<210> 5685
 <211> 604
 <212> DNA
 <213> Homo sapiens

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<400> 5685
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120
gagcggcagg agtggaagcg cttcatcgag gagcggctgc tcatgtactc cttcgtcaat
180
gacaagtatg ttccctccca gaggcctga cagacttggg gtccacaggg gaagccagag
240
gtgcccttgg caaggggtgga gctgggggct gggctctgcg gggccctgtg gccatgggag
300
gttgcggttc ttggctccag gcagctttga gagtgagacg gatagctcac cacataggag
360
aatcagacc gggaccaggc aggctgtggg gtggagagag tggctaattt gggagataga
420
gccgtagcac ttatgagggg atgtatgtgg ttgatggttc caggtggcct ctctacgaac
480
caacatggca tctctcgagc agaggccatg ggccagtggg tgcgggctgc catccccga
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600
atcc
604

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<210> 5686
 <211> 69
 <212> PRT
 <213> Homo sapiens

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<400> 5686
Pro Cys Ser Arg Val Gly Gly Lys Arg Val Val Cys Tyr Asp Asp Arg
1             5             10             15
Phe Ile Val Lys Leu Ala Tyr Glu Ser Asp Gly Ile Val Val Ser Asn
      20             25             30
Asp Thr Tyr Arg Asp Leu Gln Gly Glu Arg Gln Glu Trp Lys Arg Phe

```

35 40 45
 Ile Glu Glu Arg Leu Leu Met Tyr Ser Phe Val Asn Asp Lys Tyr Val
 50 55 60
 Pro Ser Gln Arg Pro
 65

<210> 5687
 <211> 328
 <212> DNA
 <213> Homo sapiens

<400> 5687
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 ccccggtctt gcatgcacgc ctgcgtgaac accccgggct cttcccgttg cacctgcccc
 120
 ggtggatccg aaactctggc tgacgggaag agctgtgaga atgtggatga atgtgtgggc
 180
 ctgcagccgg tgtgccccca ggggaccaca tgcataca cgggtggaag cttccagtgt
 240
 gtcagccctg agtgcctcga gggcagcggc aatgtgagct acgtgaagac gtctccattc
 300
 cagtgtgagc ggaacccctg ccccatgg
 328

<210> 5688
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 5688
 Thr Leu Ser Arg Pro Arg Gly Ala Gly Lys Gly Gly Gly Asp Gly Gly
 1 5 10 15
 Gly Gly Glu Arg Pro Arg Leu Cys Met His Ala Cys Val Asn Thr Pro
 20 25 30
 Gly Ser Ser Arg Cys Thr Cys Pro Gly Gly Ser Glu Thr Leu Ala Asp
 35 40 45
 Gly Lys Ser Cys Glu Asn Val Asp Glu Cys Val Gly Leu Gln Pro Val
 50 55 60
 Cys Pro Gln Gly Thr Thr Cys Ile Asn Thr Gly Gly Ser Phe Gln Cys
 65 70 75 80
 Val Ser Pro Glu Cys Pro Glu Gly Ser Gly Asn Val Ser Tyr Val Lys
 85 90 95
 Thr Ser Pro Phe Gln Cys Glu Arg Asn Pro Cys Pro Met
 100 105

<210> 5689
 <211> 1897
 <212> DNA
 <213> Homo sapiens

<400> 5689
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120
tgtgtggtgg tcttcagcca ggctcctagt gggagagccc cactcagccc cagtttgaac
180
tctcgcccat cacctatcag tgccactncc tccagctctc gttcctgaaa cccgagagta
240
ccgctctcag tctccagtaa gaagcatgga tgaagctcct tgtgttaacg gccgctgggg
300
aacactgaga cccagggctc aaaggcagac tcctcagggt cccgggaagg gagcctttcc
360
ccagccagag gagacggctc tcctatcctc aatgggtggga gtttgtctcc aggaacggca
420
gctgtgggtg gctcttcttt ggacagtcct gtacaggcca tatctccaag tactccatct
480
gctgctgaag gatacgacct gaaaatagga ctttctttgg cccccgacg aggatcaacc
540
agatcagaaa gatctgagat taggatccat agatctgaat tgggatctaa acccgcttcc
600
agtagtaatc ccatggatgg catggacaat aggacagttg ggggaagtat gagacacct
660
cctgaacaga caaatggtgt gcatacccca cctcacgtgg ccagtgcctt tgcagggggc
720
gtctccccag gtgccctgcg tcggagtctg gaagccatca aagcgatgtc ctccaaaggc
780
ccctcggcct ctgcagcact aagtcctcct cttgggtctt ctccaggctc tcctgggagc
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cagagtttga gcagtggaga aacagtgcc atccctcgcc cagggcctgc ccaaggagat
900
ggacattcct tacctcccat tgctcgccgc ctgggccacc accctocaca gtccctaaat
960
gttggaacac ccctatacca gagtatgaac tgcaagccca tgcagatgta cgtgctggac
1020
attaaagaca ccaaggagaa ggggcgggctc aaatggaaag tatttaatag cagttctgtg
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tactttgtac gagcaaagag ataatgtgtt ctaaaccctt ttccttttct gtggctttta
1260
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1320
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1380
ttaagaaaaa aaattatata taaatatata tatatatatt atatagccaa ctctgttgac
1440
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1500
gctgggctgc ctttttctac cttgctggta actagaccaa gaagttagag aatagactaa
1560
catcagtaac ttcccaaaag aaactgaaga gccccctgta aatctttatg tggccttctt
1620
ggagttaaaa aatgaaaggg catatgtaag ttgcaaaggt ggagggtttt agactctcat
1680

gcttcaggtg ctgtcgggggt aaaagtaact gtttttcccc ttctcttaaa accacagagg
 1740
 acctgtgaca gctctgcaga aatgccagtg cctggccccc tcttgccctt tatggctgag
 1800
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 1860
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 1897

<210> 5690
 <211> 54
 <212> PRT
 <213> Homo sapiens

<400> 5690
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 Val Gly Gln Cys Val Val Val Phe Ser Gln Ala Pro Ser Gly Arg Ala
 20 25 30
 Pro Leu Ser Pro Ser Leu Asn Ser Arg Pro Ser Pro Ile Ser Ala Thr
 35 40 45
 Xaa Ser Ser Ser Arg Ser
 50

<210> 5691
 <211> 1227
 <212> DNA
 <213> Homo sapiens

<400> 5691
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 aaccgtcctg tggaggtgta ccagtacagc acagaaccca tcaacacatt ccatgggata
 120
 catcaaaacg aggacgaacc cattcgtgtt agctaccatc ggaatatcca ctataattca
 180
 gtggtgaatc ctaacaaggc caccattggg gtggggctgg gctgccatca ttcaaaccag
 240
 ggtttgcaga gcagtctctg atgaagaatg ccataaaaac atcggaggag tcatggattg
 300
 aacagcagat gctagaagac aagaaacggg ccacagactg ggaggccaca aatgaagcca
 360
 tcgaggagca ggtggctcgg gaatcctacc tgcagtgggt gcgggatcag gagaaacagg
 420
 ctgcgcaggt ccgaggcccc agccagcccc ggaaagccag cgccacatgc agttcggcca
 480
 cagcagcagc ctccagtggc ctggaggagt ggactagccg gtcccccgcg cagcggagtt
 540
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 600
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 720

agtgccgggc cctcattcag cagatgtccc cctctgcctt tggctctgaat gactgggatg
 780
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 840
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 900
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 1020
 aaagtctccc tgccctcat tcttccaag atgagaaaaa cttgccgcca cccccgaca
 1080
 ctgatgccag ggaggtggga ggaagaagtg ggaaatttcc cttcccagta cccccaagaa
 1140
 cgtctgagcc ttcaatgttg aattttttct ttattaaaat tacttttatc ttataaaatc
 1200
 aactaatcaa aaatgaaaaa aaaaaaa
 1227

<210> 5692

<211> 86

<212> PRT

<213> Homo sapiens

<400> 5692

Lys	Arg	Lys	Asn	Asn	Cys	His	Gly	Asn	His	Ile	Glu	Met	Gln	Ala	Met
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Ala	Glu	Met	Tyr	Asn	Arg	Pro	Val	Glu	Val	Tyr	Gln	Tyr	Ser	Thr	Glu
			20					25					30		
Pro	Ile	Asn	Thr	Phe	His	Gly	Ile	His	Gln	Asn	Glu	Asp	Glu	Pro	Ile
		35					40					45			
Arg	Val	Ser	Tyr	His	Arg	Asn	Ile	His	Tyr	Asn	Ser	Val	Val	Asn	Pro
	50					55					60				
Asn	Lys	Ala	Thr	Ile	Gly	Val	Gly	Leu	Gly	Cys	His	His	Ser	Asn	Gln
65					70				75					80	
Gly	Leu	Gln	Ser	Ser	Leu										
				85											

<210> 5693

<211> 389

<212> DNA

<213> Homo sapiens

<400> 5693

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 120
 tccaaccccg cagggccctt cgtcgggcgg tcccaactta gtctgccctt gacgcggcct
 180
 ctgggccctc ccgggttggg gagctgacgg cagcttcccc ccacaggtgc ctctgagcct
 240
 cggaacatga tctacatgag ccgcttgggt atctggggcg agggcacacc cttccggaac
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 389

<210> 5694
 <211> 60
 <212> PRT
 <213> Homo sapiens

<400> 5694
 Arg Gln Leu Pro Pro Thr Gly Ala Ser Glu Pro Arg Asn Met Ile Tyr
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 Met Ser Arg Leu Gly Ile Trp Gly Glu Gly Thr Pro Phe Arg Asn Phe
 20 25 30
 Glu Glu Phe Leu His Ala Ile Glu Lys Arg Gly Val Gly Ala Met Glu
 35 40 45
 Ile Val Ala Met Asp Met Lys Val Ser Gly His Val
 50 55 60

<210> 5695
 <211> 1417
 <212> DNA
 <213> Homo sapiens

<400> 5695
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 180
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 300
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 360
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 420
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 480
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 600
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 720
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 780
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 840

gatggccata aggcgggtgtt cgtggcacgg gtgctgactg gcgactacgg gcagggccgc
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 1020
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<210> 5696

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5696

Val	Ala	Leu	His	Arg	Ser	Leu	Lys	Pro	Gln	Gly	Gln	Val	Gly	Glu	Gln
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Glu	Glu	Ala	Gly	Ala	Leu	Arg	Gln	Ala	Leu	Thr	Phe	Ser	Leu	Leu	Glu
			20					25					30		
Gln	Pro	Pro	Leu	Glu	Ala	Glu	Glu	Pro	Pro	Asp	Arg	Gly	Thr	Asp	Gly
			35					40					45		
Lys	Ala	Gln	Leu	Val	Val	His	Ser	Ala	Phe	Glu	Gln	Asp	Val	Glu	Glu
	50					55					60				
Leu	Asp	Arg	Ala	Leu	Arg	Ala	Ala	Leu	Glu	Val	His	Val	Gln	Glu	Glu
65					70					75				80	
Thr	Val	Gly	Pro	Trp	Arg	Arg	Thr	Leu	Pro	Ala	Glu	Leu	Arg	Ala	Arg
			85						90					95	
Leu	Glu	Arg	Cys	His	Gly	Val	Ser	Val	Ala	Leu	Arg	Gly	Asp	Cys	Thr
			100						105				110		
Ile	Leu	Arg	Gly	Phe	Gly	Ala	His	Pro	Ala	Arg	Ala	Ala	Arg	His	Leu
	115						120					125			
Val	Ala	Leu	Leu	Ala	Gly	Pro	Trp	Asp	Gln	Ser	Leu	Ala	Phe	Pro	Leu
	130					135					140				
Ala	Ala	Ser	Gly	Pro	Thr	Leu	Ala	Gly	Gln	Thr	Leu	Lys	Gly	Pro	Trp
145					150					155				160	
Asn	Asn	Leu	Glu	Arg	Leu	Ala	Glu	Asn	Thr	Gly	Glu	Phe	Gln	Glu	Val
			165						170				175		
Val	Arg	Ala	Phe	Tyr	Asp	Thr	Leu	Asp	Ala	Ala	Arg	Ser	Ser	Ile	Arg
			180					185					190		
Val	Val	Arg	Val	Glu	Arg	Val	Ser	His	Pro	Leu	Leu	Gln	Gln	Gln	Tyr
		195					200					205			
Glu	Leu	Tyr	Arg	Glu	Arg	Leu	Leu	Gln	Arg	Cys	Glu	Arg	Arg	Pro	Val

210	215	220
Glu Gln Val Leu Tyr His Gly Thr Thr Ala Pro Ala Val Pro Asp Ile		
225	230	235
Cys Ala His Gly Phe Asn Arg Ser Phe Cys Gly Arg Asn Ala Thr Val		240
	245	250
Tyr Gly Lys Gly Val Tyr Phe Ala Arg Arg Ala Ser Leu Ser Val Gln		255
	260	265
Asp Arg Tyr Ser Pro Pro Asn Ala Asp Gly His Lys Ala Val Phe Val		270
	275	280
Ala Arg Val Leu Thr Gly Asp Tyr Gly Gln Gly Arg Arg Gly Leu Arg		285
	290	295
Ala Pro Pro Leu Arg Gly Pro Gly His Val Leu Leu Arg Tyr Asp Ser		300
305	310	315
Ala Val Asp Cys Ile Cys Gln Pro Ser Ile Phe Val Ile Phe His Asp		320
	325	330
Thr Gln Ala Leu Pro Thr His Leu Ile Thr Cys Glu His Val Pro Arg		335
	340	345
Ala Ser Pro Asp Asp Pro Ser Gly Leu Pro Gly Arg Ser Pro Asp Thr		350
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<210> 5697

<211> 3362

<212> DNA

<213> Homo sapiens

<400> 5697

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 180
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 240
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 360
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 420
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 780
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1800
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1920
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1980
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2100
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2460
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2520

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<210> 5698

<211> 403

<212> PRT

<213> Homo sapiens

<400> 5698

Met	Phe	Val	Ala	Ser	Glu	Arg	Lys	Met	Arg	Ala	His	Gln	Val	Leu	Thr
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Phe	Leu	Leu	Leu	Phe	Val	Ile	Thr	Ser	Val	Ala	Ser	Glu	Asn	Ala	Ser
			20					25					30		
Thr	Ser	Arg	Gly	Cys	Gly	Leu	Asp	Leu	Leu	Pro	Gln	Tyr	Val	Ser	Leu
			35				40					45			
Cys	Asp	Leu	Asp	Ala	Ile	Trp	Gly	Ile	Val	Val	Glu	Ala	Val	Ala	Gly
			50			55				60					
Ala	Gly	Ala	Leu	Ile	Thr	Leu	Leu	Leu	Met	Leu	Ile	Leu	Leu	Val	Arg
65					70					75				80	
Leu	Pro	Phe	Ile	Lys	Glu	Lys	Glu	Lys	Lys	Ser	Pro	Val	Gly	Leu	His
			85					90						95	
Phe	Leu	Phe	Leu	Leu	Gly	Thr	Leu	Gly	Leu	Phe	Gly	Leu	Thr	Phe	Ala
			100					105					110		
Phe	Ile	Ile	Gln	Glu	Asp	Glu	Thr	Ile	Cys	Ser	Val	Arg	Arg	Phe	Leu
			115				120					125			
Trp	Gly	Val	Leu	Phe	Ala	Leu	Cys	Phe	Ser	Cys	Leu	Leu	Ser	Gln	Ala

130	135	140
Trp Arg Val Arg Arg	Leu Val Arg His Gly Thr	Gly Pro Ala Gly Trp
145	150	155
Gln Leu Val Gly Leu	Ala Leu Cys Leu Met Leu	Val Gln Val Ile Ile
165	170	175
Ala Val Glu Trp Leu	Val Leu Thr Val Leu Arg	Asp Thr Arg Pro Ala
180	185	190
Cys Ala Tyr Glu Pro	Met Asp Phe Val Met Ala	Leu Ile Tyr Asp Met
195	200	205
Val Leu Leu Val Val	Thr Leu Gly Leu Ala Leu	Phe Thr Leu Cys Gly
210	215	220
Lys Phe Lys Arg Trp	Lys Leu Asn Gly Ala Phe	Leu Leu Ile Thr Ala
225	230	235
Phe Leu Ser Val Leu	Ile Trp Val Ala Trp Met	Thr Met Tyr Leu Phe
245	250	255
Gly Asn Val Lys Leu	Gln Gln Gly Asp Ala Trp	Asn Asp Pro Thr Leu
260	265	270
Ala Ile Thr Leu Ala	Ala Ser Gly Trp Val Phe	Val Ile Phe His Ala
275	280	285
Ile Pro Glu Ile His	Cys Thr Leu Leu Pro Ala	Leu Gln Glu Asn Thr
290	295	300
Pro Asn Tyr Phe Asp	Thr Ser Gln Pro Arg Met	Arg Glu Thr Ala Phe
305	310	315
Glu Glu Asp Val Gln	Leu Pro Arg Ala Tyr Met	Glu Asn Lys Ala Phe
325	330	335
Ser Met Asp Glu His	Asn Ala Ala Leu Arg Thr	Ala Gly Phe Pro Asn
340	345	350
Gly Ser Leu Gly Lys	Arg Pro Ser Gly Ser Leu	Gly Lys Arg Pro Ser
355	360	365
Ala Pro Phe Arg Ser	Asn Val Tyr Gln Pro Thr	Glu Met Ala Val Val
370	375	380
Leu Asn Gly Gly Thr	Ile Pro Thr Ala Pro Pro	Ser His Thr Gly Arg
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His Leu Trp		400

<210> 5699

<211> 1565

<212> DNA

<213> Homo sapiens

<400> 5699

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 180

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 240

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<210> 5700

<211> 197

<212> PRT

<213> Homo sapiens

<400> 5700

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Ser	Gln	Ala	Asp	Ser	Lys	Lys	Lys	Ser	Asn	Leu	Met	Met	Ser	Leu	Phe
		20						25					30		
Glu	Pro	Gly	Pro	Glu	Pro	Leu	Pro	Trp	Leu	Gly	Lys	Met	Ala	Gln	Leu

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<210> 5701
<211> -1885
<212> DNA
<213> Homo sapiens
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<210> 5702

<211> 348

<212> PRT

<213> Homo sapiens

<400> 5702

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Pro	Pro	Pro	Leu	Ala	Pro	Asn	Ile	Ser	Val	Pro	His	Arg	Cys	Leu
			20					25				30		Leu
Leu	Leu	Tyr	Glu	Asp	Ile	Gly	Thr	Ser	Arg	Val	Arg	Tyr	Trp	Asp
		35					40					45		Leu
Leu	Leu	Leu	Ile	Pro	Asn	Val	Leu	Phe	Leu	Ile	Phe	Leu	Leu	Trp
		50				55					60			Lys
Leu	Pro	Ser	Ala	Arg	Ala	Lys	Ile	Arg	Ile	Thr	Ser	Ser	Pro	Ile
														Phe

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65          70          75          80
Ile Thr Phe Tyr Ile Leu Val Phe Val Val Ala Leu Val Gly Ile Ala
      85          90          95
Arg Ala Val Val Ser Met Thr Val Ser Thr Ser Asn Ala Ala Thr Val
      100          105          110
Ala Asp Lys Ile Leu Trp Glu Ile Thr Arg Phe Phe Leu Leu Ala Ile
      115          120          125
Glu Leu Ser Val Ile Ile Leu Gly Leu Ala Phe Gly His Leu Glu Ser
      130          135          140
Lys Ser Ser Ile Lys Arg Val Leu Ala Ile Thr Thr Val Leu Ser Leu
145          150          155          160
Ala Tyr Ser Val Thr Gln Gly Thr Leu Glu Ile Leu Tyr Pro Asp Ala
      165          170          175
His Leu Ser Ala Glu Asp Phe Asn Ile Tyr Gly His Gly Gly Arg Gln
      180          185          190
Phe Trp Leu Val Ser Ser Cys Phe Phe Phe Leu Val Tyr Ser Leu Val
      195          200          205
Val Ile Leu Pro Lys Thr Pro Leu Lys Glu Arg Ile Ser Leu Pro Ser
      210          215          220
Arg Arg Ser Phe Tyr Val Tyr Ala Gly Ile Leu Ala Leu Leu Asn Leu
225          230          235          240
Leu Gln Gly Leu Gly Ser Val Leu Leu Cys Phe Asp Ile Ile Glu Gly
      245          250          255
Leu Cys Cys Val Asp Ala Thr Thr Phe Leu Tyr Phe Ser Phe Phe Ala
      260          265          270
Pro Leu Ile Tyr Val Ala Phe Leu Arg Gly Phe Phe Gly Ser Glu Pro
      275          280          285
Lys Ile Leu Phe Xaa Leu Gln Met Pro Ser Gly Arg Asp Arg Gly Ala
      290          295          300
Arg Cys Thr Pro Thr Pro Ala Leu Arg Cys Gly Pro Ala Gly Gly Pro
305          310          315          320
Gly Gly Cys Arg Gly Cys Trp Gly Leu Ser Cys Gln Leu Leu Glu His
      325          330          335
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<210> 5703

<211> 1496

<212> DNA

<213> Homo sapiens

<400> 5703

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<210> 5704

<211> 269

<212> PRT

<213> Homo sapiens

<400> 5704

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		20						25				30			
Glu	Gly	Ser	Val	Leu	Arg	Arg	Gly	Phe	Gln	Thr	Cys	Glu	His	Trp	Lys
		35					40				45				
Gln	Ile	Phe	Met	Glu	Ile	Val	Gly	Val	Gln	Ser	Ala	Leu	Cys	Gly	Leu
	50					55				60					
Val	Leu	Ser	Leu	Leu	Ile	Cys	Val	Ala	Ala	Val	Ala	Val	Phe	Thr	Thr

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His Ile Leu Leu Leu Leu Pro Val Leu Leu Ser Ile Leu Gly Ile Val
          85          90          95
Cys Leu Val Val Thr Ile Met Tyr Trp Ser Gly Trp Glu Met Gly Ala
          100          105          110
Val Glu Ala Ile Ser Leu Ser Ile Leu Val Gly Ser Ser Val Asp Tyr
          115          120          125
Cys Val His Leu Val Glu Gly Tyr Leu Leu Ala Gly Glu Asn Leu Pro
          130          135          140
Pro His Gln Ala Glu Asp Ala Arg Thr Gln Arg Gln Trp Arg Thr Leu
145          150          155          160
Glu Ala Val Arg His Val Gly Val Ala Ile Val Ser Ser Ala Leu Thr
          165          170          175
Thr Val Ile Ala Thr Val Pro Leu Phe Phe Cys Ile Ile Ala Pro Phe
          180          185          190
Ala Lys Phe Gly Lys Ile Val Ala Leu Asn Thr Gly Val Ser Ile Leu
          195          200          205
Tyr Thr Leu Thr Val Ser Thr Ala Leu Leu Gly Ile Met Ala Pro Ser
          210          215          220
Ser Phe Thr Arg Thr Arg Thr Ser Phe Leu Lys Ala Leu Gly Ala Val
225          230          235          240
Leu Leu Ala Gly Ala Leu Gly Leu Gly Ala Cys Leu Val Leu Leu Gln
          245          250          255
Ser Gly Tyr Lys Ile Pro Leu Pro Ala Gly Ala Ser Leu
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<210> 5705

<211> 768

<212> DNA

<213> Homo sapiens

<400> 5705

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<210> 5706
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 <212> PRT
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<400> 5706
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 35 40 45
 His Thr Asn Arg Thr Thr Ser Trp Ile Asp Pro Arg Asp Arg Tyr Thr
 50 55 60
 Lys Pro Leu Thr Phe Ala Asp Cys Ile Ser Asp Glu Leu Pro Leu Gly
 65 70 75 80
 Trp Glu Glu Ala Tyr Asp Pro Gln Val Gly Asp Tyr Phe Ile Asp His
 85 90 95
 Asn Thr Lys Thr Thr Gln Ile Glu Asp Pro Arg Val Gln Trp Arg Arg
 100 105 110
 Glu Gln Glu His Met Leu Lys Asp Tyr Leu Val Val Ala Gln Glu Ala
 115 120 125
 Leu Ser Ala Gln Lys Glu Ile Tyr Gln Val Lys Gln Gln Arg Leu Glu
 130 135 140
 Leu Ala Gln Gln Glu Tyr Gln Gln Leu His Ala Val Trp Glu His Lys
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<210> 5707
 <211> 6988
 <212> DNA
 <213> Homo sapiens

<400> 5707
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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 5709

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<212> PRT

<213> Homo sapiens

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Ala Val Glu Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu Gly
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 Pro Pro Leu Asn Ile His Tyr Leu Lys Leu Ile Asp Arg Glu Asn Phe
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<210> 5714

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5714

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Glu	Met	Asp	Leu	Gln	Val	Gln	Asn	Ala	Met	Asp	Gln	Leu	Glu	Gln	Arg
			20					25					30		
Val	Ser	Glu	Phe	Phe	Met	Asn	Ala	Lys	Lys	Asn	Lys	Pro	Glu	Trp	Arg
		35					40					45			
Glu	Glu	Gln	Met	Ala	Ser	Ile	Lys	Lys	Asp	Tyr	Tyr	Lys	Ala	Leu	Glu
		50				55				60					
Asp	Ala	Asp	Glu	Lys	Val	Gln	Leu	Ala	Asn	Gln	Ile	Tyr	Asp	Leu	Val
65					70				75					80	
Asp	Arg	His	Leu	Arg	Lys	Leu	Asp	Gln	Glu	Leu	Ala	Lys	Phe	Lys	Met

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Glu Leu Glu Ala Asp Asn Ala Gly Ile Thr Glu Ile Leu Glu Arg Arg
      100          105          110
Ser Leu Glu Leu Asp Thr Pro Ser Gln Pro Val Asn Asn His His Ala
      115          120          125
His Ser His Thr Pro Val Glu Lys Arg Lys Tyr Asn Pro Thr Ser His
      130          135          140
His Thr Thr Thr Asp His Ile Pro Glu Lys Lys Phe Lys Ser Glu Ala
      145          150          155          160
Leu Leu Ser Thr Leu Thr Ser Asp Ala Ser Lys Glu Asn Thr Leu Gly
      165          170          175
Cys Arg Asn Asn Asn Ser Thr Ala Ser Ser Asn Asn Ala Tyr Asn Val
      180          185          190
Asn Ser Ser Gln Pro Leu Gly Ser Tyr Asn Ile Gly Ser Leu Ser Ser
      195          200          205
Gly Thr Gly Ala Gly Ala Ile Thr Met Ala Ala Ala Gln Ala Val Gln
      210          215          220
Ala Thr Ala Gln Met Lys Glu Gly Arg Arg Thr Ser Ser Leu Lys Ala
      225          230          235          240
Ser Tyr Glu Ala Phe Lys Asn Asn Asp Phe Gln Leu Gly Lys Glu Phe
      245          250          255
Ser Met Ala Arg Glu Thr Val Gly Tyr Ser Ser Ser Ser Ala Leu Met
      260          265          270
Thr Thr Leu Thr Gln Asn Ala Ser Ser Ser Ala Ala Asp Ser Arg Ser
      275          280          285
Gly Arg Lys Ser Lys Asn Asn Lys Ser Ser Ser Gln Gln Ser Ser
      290          295          300
Ser Ser Ser Ser Ser Ser Ser Leu Ser Ser Cys Ser Ser Ser Ser Thr
      305          310          315          320
Val Val Gln Glu Ile Ser Gln Gln Thr Thr Val Val Pro Glu Ser Asp
      325          330          335
Ser Asn Ser Gln Val Asp Trp Thr Tyr Asp Pro Asn Glu Pro Arg Tyr
      340          345          350
Cys Ile Cys Asn Gln Val Ser Tyr Gly Glu Met Val Gly Cys Asp Asn
      355          360          365
Gln Asp Cys Pro Ile Glu Trp Phe His Tyr Gly Cys Val Gly Leu Thr
      370          375          380
Glu Ala Pro Lys Gly Lys Trp Tyr Cys Pro Gln Cys Thr Ala Ala Met
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Lys Arg Arg Gly Ser Arg His Lys
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<210> 5715

<211> 1458

<212> DNA

<213> Homo sapiens

<400> 5715

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120

ggggcttggc cgtctagtgt gatgaaggag gcgaccccca aggtgggaag gcgcacgggt
180

tggggtttga ggggtggatga ttgggtgacgg aggggtgtatc ttcaggagga ggttcgagtg
 240
 aagatcaaag acttgaatga acacattggt tgctgcctat gcgccggcta ctctgtggat
 300
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 360
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 420
 aacctcaaac tggaccgggt catgcaggac atcgtgtata agctgggtgcc tggcttgcaa
 480
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 540
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 720
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 780
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 1320
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<210> 5716

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5716

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Val	Cys	Cys	Leu	Cys	Ala	Gly	Tyr	Phe	Val	Asp	Ala	Thr	Thr	Ile	Thr

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      20      25      30
Glu Cys Leu His Thr Phe Cys Lys Ser Cys Ile Val Lys Tyr Leu Gln
      35      40      45
Thr Ser Lys Tyr Cys Pro Met Cys Asn Ile Lys Ile His Glu Thr Gln
      50      55      60
Pro Leu Leu Asn Leu Lys Leu Asp Arg Val Met Gln Asp Ile Val Tyr
      65      70      75      80
Lys Leu Val Pro Gly Leu Gln Asp Ser Glu Glu Lys Arg Ile Arg Glu
      85      90      95
Phe Tyr Gln Ser Arg Gly Leu Asp Arg Val Thr Gln Pro Thr Gly Glu
      100      105      110
Glu Pro Ala Leu Ser Asn Leu Gly Leu Pro Phe Ser Ser Phe Asp His
      115      120      125
Ser Lys Ala His Tyr Tyr Arg Tyr Asp Glu Gln Leu Asn Leu Cys Leu
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Glu Arg Leu Arg
145

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<210> 5717

<211> 1419

<212> DNA

<213> Homo sapiens

<400> 5717

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120
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180
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240
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300
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720
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900

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<210> 5718

<211> 228

<212> PRT

<213> Homo sapiens

<400> 5718

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Leu	Leu	Met	Leu	Gly	Val	Thr	Leu	Pro	Asn	Ser	Tyr	Trp	Arg	Val	Ser
			20					25					30		
Thr	Val	His	Gly	Asn	Val	Ile	Thr	Thr	Asn	Thr	Ile	Phe	Glu	Asn	Leu
		35					40					45			
Trp	Phe	Ser	Cys	Ala	Thr	Asp	Ser	Leu	Gly	Val	Tyr	Asn	Cys	Trp	Glu
	50					55				60					
Phe	Pro	Ser	Met	Leu	Ala	Leu	Ser	Gly	Tyr	Ile	Gln	Ala	Cys	Arg	Ala
65				70					75					80	
Leu	Met	Ile	Thr	Ala	Ile	Leu	Leu	Gly	Phe	Leu	Gly	Leu	Leu	Leu	Gly
			85					90						95	
Ile	Ala	Gly	Leu	Arg	Cys	Thr	Asn	Ile	Gly	Gly	Leu	Glu	Leu	Ser	Arg
			100					105					110		
Lys	Ala	Lys	Leu	Ala	Ala	Thr	Ala	Gly	Ala	Leu	His	Ile	Leu	Ala	Gly
		115					120					125			
Ile	Cys	Gly	Met	Val	Ala	Ile	Ser	Trp	Tyr	Ala	Phe	Asn	Ile	Thr	Arg
	130					135					140				
Asp	Phe	Phe	Asp	Pro	Leu	Tyr	Pro	Gly	Thr	Lys	Tyr	Glu	Leu	Gly	Pro
145				150						155				160	
Ala	Leu	Tyr	Leu	Gly	Trp	Ser	Ala	Ser	Leu	Ile	Ser	Ile	Leu	Gly	Gly
			165					170						175	
Leu	Cys	Leu	Cys	Ser	Ala	Cys	Cys	Cys	Gly	Ser	Asp	Glu	Asp	Pro	Ala
		180						185				190			
Ala	Ser	Ala	Arg	Arg	Pro	Tyr	Gln	Ala	Pro	Val	Ser	Val	Met	Pro	Val
		195					200					205			
Ala	Thr	Ser	Asp	Gln	Glu	Gly	Asp	Ser	Ser	Phe	Gly	Lys	Tyr	Gly	Arg
	210					215					220				
Asn	Ala	Tyr	Val												

225

<210> 5719

<211> 2267

<212> DNA

<213> Homo sapiens

<400> 5719

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240
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<210> 5720

<211> 455

<212> PRT

<213> Homo sapiens

<400> 5720

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Gln	Gln	Gln	Arg	Gly	His	Gly	Ala	Val	His	Ala	Ala	Gly	Gln	Gly	Ala
			20					25					30		
His	Asp	Val	Pro	Gln	Gly	Leu	His	Pro	Pro	Val	Ala	Pro	Ser	Gly	Gly
		35					40				45				
Val	Asp	Ser	Ala	Val	Ala	Ala	Leu	Leu	Leu	Arg	Arg	Arg	Gly	Tyr	Gln
		50				55				60					
Val	Thr	Gly	Val	Phe	Met	Lys	Asn	Trp	Asp	Ser	Leu	Asp	Glu	His	Gly
65					70				75					80	
Val	Cys	Thr	Ala	Asp	Lys	Asp	Cys	Glu	Asp	Ala	Tyr	Arg	Val	Cys	Gln
				85				90					95		
Ile	Leu	Asp	Ile	Pro	Phe	His	Gln	Val	Ser	Tyr	Val	Lys	Glu	Tyr	Trp
			100				105					110			
Asn	Asp	Val	Phe	Ser	Asp	Phe	Leu	Asn	Glu	Tyr	Glu	Lys	Gly	Arg	Thr
		115					120					125			
Pro	Asn	Pro	Asp	Ile	Val	Cys	Asn	Lys	His	Ile	Lys	Phe	Ser	Cys	Phe


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His Tyr Ala Arg Thr Ser Leu Glu Asp Glu Glu Val Phe Glu Gln Lys
      165              170              175
His Val Lys Lys Pro Glu Gly Leu Phe Arg Asn Arg Phe Glu Val Arg
      180              185              190
Asn Ala Val Lys Leu Leu Gln Ala Ala Asp Ser Phe Lys Asp Gln Thr
      195              200              205
Phe Phe Leu Ser Gln Val Ser Gln Asp Ala Leu Arg Arg Thr Ile Phe
      210              215              220
Pro Leu Gly Gly Leu Thr Lys Glu Phe Val Lys Lys Ile Ala Ala Glu
225              230              235              240
Asn Arg Leu His His Val Leu Gln Lys Lys Glu Ser Met Gly Met Cys
      245              250              255
Phe Ile Gly Lys Arg Asn Phe Glu His Phe Leu Leu Gln Tyr Leu Gln
      260              265              270
Pro Arg Pro Gly His Phe Ile Ser Ile Glu Asp Asn Lys Val Leu Gly
      275              280              285
Thr His Lys Gly Trp Phe Leu Tyr Thr Leu Gly Gln Arg Ala Asn Ile
      290              295              300
Gly Gly Leu Arg Glu Pro Trp Tyr Val Val Glu Lys Asp Ser Val Lys
305              310              315              320
Gly Asp Val Phe-Val Ala Pro Arg Thr Asp His Pro Ala Leu Tyr Arg
      325              330              335
Asp Leu Leu Arg Thr Ser Arg Val His Trp Ile Ala Glu Glu Pro Pro
      340              345              350
Ala Ala Leu Val Arg Asp Lys Met Met Glu Cys His Phe Arg Phe Arg
      355              360              365
His Gln Met Ala Leu Val Pro Cys Val Leu Thr Leu Asn Gln Asp Gly
      370              375              380
Thr Val Trp Val Thr Ala Val Gln Ala Val Arg Ala Leu Ala Thr Gly
385              390              395              400
Gln Phe Ala Val Phe Tyr Lys Gly Asp Glu Cys Leu Gly Ser Gly Lys
      405              410              415
Ile Leu Arg Leu Gly Pro Ser Ala Tyr Thr Leu Gln Lys Gly Gln Arg
      420              425              430
Arg Ala Gly Met Ala Thr Glu Ser Pro Ser Asp Ser Pro Glu Asp Gly
      435              440              445
Pro Gly Leu Ser Pro Leu Leu
      450              455

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<210> 5721

<211> 400

<212> DNA

<213> Homo sapiens

<400> 5721

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120

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180

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 300
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<210> 5722

<211> 80

<212> PRT

<213> Homo sapiens

<400> 5722

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Glu	Arg	Lys	Ala	Leu	Met	Leu	Ala	Met	Gly	Tyr	His	Glu	Lys	Gly	Arg
			20				25					30			
Ala	Phe	Leu	Lys	Arg	Lys	Glu	Tyr	Gly	Ile	Ala	Leu	Pro	Cys	Leu	Leu
			35				40					45			
Asp	Ala	Asp	Lys	Tyr	Phe	Trp	Trp	Ala	Leu	Leu	Tyr	Leu	Val	Asn	Thr
	50					55					60				
Ser	Phe	Lys	Glu	Asp	Gly	Pro	Asp	Tyr	Thr	Glu	His	Leu	Pro	Cys	Pro
65					70				75					80	

<210> 5723

<211> 376

<212> DNA

<213> Homo sapiens

<400> 5723

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 180
 gcttccatct gcagcggatg tctgctctca gatgaaggca caggetgccc ctgcctgccc
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<210> 5724

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5724

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		20						25					30		
Met	Gly	Val	Pro	Glu	Val	Trp	Gly	Leu	Leu	Ser	Lys	Glu	Trp	Trp	His
		35					40					45			
Ala	Gly	Leu	Ser	Gly	Ala	Met	Trp	His	Gly	Trp	Trp	Ala	Ser	Ile	Cys
	50					55					60				
Ser	Gly	Cys	Leu	Leu	Ser	Asp	Glu	Gly	Thr	Gly	Cys	Pro	Cys	Leu	Pro
65					70					75				80	
Gln	His	Ala	Pro	Cys	Pro	Ala	Cys	Pro	Leu	Pro	Cys	Met	Ser	Pro	Val
			85						90				95		
Leu	His	Ile	Pro	Cys	Pro	Ala	Gly	Pro	Ile	Leu	Ser	Cys	Met	Ser	Pro
			100					105					110		
Val	Leu	His	Met	Pro	Cys	Pro	Ala	Leu	Leu	Leu	His	Ala			
		115					120					125			

<210> 5725

<211> 1160

<212> DNA

<213> Homo sapiens

<400> 5725

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120
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180
ttcccggggg tctccaccga tgacagcgcc gtgccgcgcg cgggaggggc gccccatttc
240
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300
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420
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960

tcattggttct cccttcctcc ctgaggacac caaattggat gagagcaagt ttgagagaag
 1020
 aatgaatcaa ctgctatcct tccccctacc cctcagccca ggagggaaaag ggcattttct
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 1160

<210> 5726

<211> 273

<212> PRT

<213> Homo sapiens

<400> 5726

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			20					25					30		
Ser	Arg	Pro	Pro	Gly	Ser	Arg	Pro	Thr	Ala	His	Gly	Arg	Ala	Trp	Gly
		35					40					45			
Ala	Ser	Arg	Ala	Arg	Arg	Pro	Ala	Pro	Gly	Gly	Pro	Phe	Pro	Gly	Val
	50				55					60					
Ser	Thr	Asp	Asp	Ser	Ala	Val	Pro	Pro	Pro	Gly	Gly	Ala	Pro	His	Phe
65					70					75				80	
Gly	His	Tyr	Arg	Thr	Gly	Gly	Gly	Ala	Met	Gly	Leu	Arg	Ser	Ala	Ser
			85					90					95		
Val	Ser	Ser	Val	Ala	Gly	Met	Gly	Met	Asp	Pro	Ser	Thr	Ala	Gly	Gly
			100					105					110		
Val	Pro	Phe	Gly	Leu	Tyr	Thr	Pro	Ala	Ser	Arg	Gly	Thr	Gly	Asp	Ser
		115					120					125			
Glu	Arg	Ala	Pro	Gly	Gly	Gly	Gly	Ser	Ala	Ser	Asp	Ser	Thr	Tyr	Ala
	130				135						140				
His	Gly	Asn	Gly	Tyr	Gln	Glu	Thr	Gly	Gly	Gly	His	His	Arg	Asp	Gly
145					150					155				160	
Met	Leu	Tyr	Leu	Gly	Ser	Arg	Ala	Ser	Leu	Ala	Asp	Ala	Leu	Pro	Leu
			165						170				175		
His	Ile	Ala	Pro	Arg	Trp	Phe	Ser	Ser	His	Ser	Gly	Phe	Lys	Cys	Pro
			180					185					190		
Ile	Cys	Ser	Lys	Ser	Val	Ala	Ser	Asp	Glu	Met	Glu	Met	His	Phe	Ile
		195					200					205			
Met	Cys	Leu	Ser	Lys	Pro	Arg	Leu	Ser	Tyr	Asn	Asp	Asp	Val	Leu	Thr
	210					215					220				
Lys	Asp	Ala	Gly	Glu	Cys	Val	Ile	Cys	Leu	Glu	Glu	Leu	Leu	Gln	Gly
225					230					235				240	
Asp	Thr	Ile	Ala	Arg	Leu	Pro	Cys	Leu	Cys	Ile	Tyr	His	Lys	Ser	Cys
			245						250				255		
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Asp

<210> 5727

<211> 1237

<212> DNA

<213> Homo sapiens

<400> 5727

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120
gagatcctaa ggaccttgag ccccaggagg ctagagcagc tggactgcca actacaggag
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240
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300
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360
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420
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480
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1020
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1237

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<210> 5728

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5728

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Lys Tyr Arg Asp Ile Asp Glu Asp Glu Ile Leu Arg Thr Leu Ser Pro
      35           40           45
Glu Glu Leu Glu Gln Leu Asp Cys Glu Leu Gln Glu Met Asp Pro Glu
      50           55           60
Asn Met Leu Leu Pro Ala Gly Leu Arg Gln Arg Asp Gln Thr Lys Lys
      65           70           75           80
Ser Pro Thr Gly Pro Leu Asp Arg Glu Ala Leu Leu Gln Tyr Leu Glu
      85           90           95
Gln Gln Ala Leu Glu Val Lys Glu Arg Asp Asp Leu Val Pro Phe Thr
      100           105           110
Gly Glu Lys Lys Gly Lys Pro Tyr Ile Gln Pro Lys Arg Glu Ile Pro
      115           120           125
Ala Glu Glu Gln Ile Thr Leu Glu Pro Glu Leu Glu Glu Ala Leu Ala
      130           135           140
His Ala Thr Asp Ala Glu Met Cys Asp Ile Ala Ala Ile Leu Asp Met
      145           150           155           160
Tyr Thr Leu Met Ser Asn Lys Gln Tyr Tyr Asp Ala Leu Cys Ser Gly
      165           170           175
Glu Ile Cys Asn Thr Glu Gly Ile Ser Ser Val Val Gln Pro Asp Lys
      180           185           190
Tyr Lys Pro Val Pro Asp Glu Pro Pro Asn Pro Thr Asn Ile Glu Glu
      195           200           205
Ile Leu Lys Arg Val Arg Ser Asn Asp Lys Glu Leu Glu Glu Val Asn
      210           215           220
Leu Asn Asn Ile Gln Asp Ile Pro Ile Pro Met Leu Ser Glu Leu Cys
      225           230           235           240
Glu Ala Met Lys Ala Asn Thr Tyr Val Arg Ser Phe Ser Leu Val Ala
      245           250           255
Thr Arg Ser Gly Asp Pro Ile Ala Asn Ala Val Ala Asp Met Leu Arg
      260           265           270
Glu Asn Arg Ser Leu Gln Ser Leu Asn Ile Glu Ser Asn Phe Ile Ser
      275           280           285
Ser Thr Gly Leu Met Ala Val Leu Lys Ala Val Arg Glu Asn Ala Thr
      290           295           300
Leu Thr Glu Leu Arg Val Asp Asn Gln Arg Gln Trp Pro Gly Asp Ala
      305           310           315           320
Val Glu Met Glu Met Ala Thr Val Leu Glu Gln Cys Pro Ser Ile Val
      325           330           335
Arg Phe Gly Tyr His Phe Thr Gln Gln Gly Pro Arg Ala Arg Ala Ala
      340           345           350
Gln Ala Met Thr Arg Asn Asn Glu Leu Arg Arg Gln Gln Lys Lys Arg
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<210> 5729

<211> 381

<212> DNA

<213> Homo sapiens

<400> 5729

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 180
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 240
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 360
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<210> 5730

<211> 64

<212> PRT

<213> Homo sapiens

<400> 5730

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Ala	Gly	Gly	His	Ser	Pro	Ala	Cys	Val	Ser	Gly	Val	Pro	Pro	Gly	Pro
			20					25				30			
Ser	Ser	Ala	Gly	Thr	Ala	Ser	Ser	Pro	Ala	Ser	Gly	Thr	Cys	Gly	
		35				40				45					
Gly	Ser	Ser	Ser	Ala	Gly	Gly	Ser	Ser	Ala	Arg	Phe	Cys	Thr	Lys	Phe
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<210> 5731

<211> 891

<212> DNA

<213> Homo sapiens

<400> 5731

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 120
 attttgtcag cacttgggaa cttctggcc cagatgattg agaagaagcg gaaaaagaa
 180
 aactctagaa gtctggatgt cggtaggcct ctgagatatg ccgtttacgg gttcttcttc
 240
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 360
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 420
 aagatgaggg ggggcttctg gccggcgctg aggatgaact ggcgggtgtg gacgccacta
 480
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 540
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cagggtgcact gtggacgtgg gtctgggggt ctcacccgcc cagcgagagc agaaccaatc
 660
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 720
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 780
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<210> 5732

<211> 193

<212> PRT

<213> Homo sapiens

<400> 5732

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		20						25					30		
Leu	Thr	Lys	Ala	Ala	Thr	Ser	Gly	Ile	Leu	Ser	Ala	Leu	Gly	Asn	Phe
		35					40					45			
Leu	Ala	Gln	Met	Ile	Glu	Lys	Lys	Arg	Lys	Lys	Glu	Asn	Ser	Arg	Ser
	50					55					60				
Leu	Asp	Val	Gly	Gly	Pro	Leu	Arg	Tyr	Ala	Val	Tyr	Gly	Phe	Phe	Phe
65					70					75				80	
Thr	Gly	Pro	Leu	Ser	His	Phe	Phe	Tyr	Phe	Phe	Met	Glu	His	Trp	Ile
				85				90					95		
Pro	Pro	Glu	Val	Pro	Leu	Ala	Gly	Leu	Arg	Arg	Leu	Leu	Leu	Asp	Arg
			100				105						110		
Leu	Val	Phe	Ala	Pro	Ala	Phe	Leu	Met	Leu	Phe	Phe	Leu	Ile	Met	Asn
		115					120					125			
Phe	Leu	Glu	Gly	Lys	Asp	Ala	Ser	Ala	Phe	Ala	Ala	Lys	Met	Arg	Gly
	130					135					140				
Gly	Phe	Trp	Pro	Ala	Leu	Arg	Met	Asn	Trp	Arg	Val	Trp	Thr	Pro	Leu
145				150					155					160	
Gln	Phe	Ile	Asn	Ile	Asn	Tyr	Val	Pro	Leu	Lys	Phe	Arg	Val	Leu	Phe
			165					170					175		
Ala	Asn	Leu	Ala	Ala	Leu	Phe	Trp	Tyr	Ala	Tyr	Leu	Ala	Ser	Leu	Gly
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Lys

<210> 5733

<211> 950

<212> DNA

<213> Homo sapiens

<400> 5733

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 120

gtcagctata ctttcctctt ctggctgccc ctgtacatca cgaatgtgga tcaccttgat
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 840
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<210> 5734

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5734

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Ile	Ser	Phe	Thr	Gly	Ala	Leu	Lys	Ile	Pro	Gly	Val	Ile	Glu	Phe	Ser
			20					25					30		
Leu	Cys	Leu	Leu	Phe	Ala	Lys	Leu	Val	Ser	Tyr	Thr	Phe	Leu	Phe	Trp
			35					40				45			
Leu	Pro	Leu	Tyr	Ile	Thr	Asn	Val	Asp	His	Leu	Asp	Ala	Lys	Lys	Ala
			50			55					60				
Gly	Cys	Thr	Gly	Ser	Pro	Asp	Pro	Leu	Arg	His	Ser	Ser	His	Arg	Thr
65					70					75				80	
Ser	Lys														

<210> 5735

<211> 4241

<212> DNA

<213> Homo sapiens

<400> 5735

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180
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240
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420
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2340
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<210> 5736

<211> 327

<212> PRT

<213> Homo sapiens

<400> 5736

Met	Pro	Gly	Pro	Thr	Gln	Thr	Leu	Ser	Pro	Asn	Gly	Glu	Asn	Asn	Asn
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Asp	Ile	Ile	Gln	Asp	Asn	Asn	Gly	Thr	Ile	Ile	Pro	Phe	Arg	Lys	His
			20					25					30		
Thr	Val	Arg	Gly	Glu	Arg	Ser	Tyr	Ser	Trp	Gly	Met	Ala	Val	Asn	Val
		35					40					45			
Tyr	Ser	Thr	Ser	Ile	Thr	Gln	Glu	Thr	Met	Ser	Arg	His	Asp	Ile	Ile
		50				55					60				
Ala	Trp	Val	Asn	Asp	Ile	Val	Ser	Leu	Asn	Tyr	Thr	Lys	Val	Glu	Gln
65					70					75				80	
Leu	Cys	Ser	Gly	Ala	Ala	Tyr	Cys	Gln	Phe	Met	Asp	Met	Leu	Phe	Pro
				85					90				95		
Gly	Cys	Ile	Ser	Leu	Lys	Lys	Val	Lys	Phe	Gln	Ala	Lys	Leu	Glu	His

```

      100      105      110
Glu Tyr Ile His Asn Phe Lys Leu Leu Gln Ala Ser Phe Lys Arg Met
      115      120      125
Asn Val Asp Lys Val Ile Pro Val Glu Lys Leu Val Lys Gly Arg Phe
      130      135      140
Gln Asp Asn Leu Asp Phe Ile Gln Trp Phe Lys Lys Phe Tyr Asp Ala
145      150      155      160
Asn Tyr Asp Gly Lys Glu Tyr Asp Pro Val Glu Ala Arg Gln Gly Gln
      165      170      175
Asp Ala Ile Pro Pro Asp Pro Gly Glu Gln Ile Phe Asn Leu Pro
      180      185      190
Lys Lys Ser His His Ala Asn Ser Pro Thr Ala Gly Ala Ala Lys Ser
      195      200      205
Ser Pro Ala Ala Lys Pro Gly Ser Thr Pro Ser Arg Pro Ser Ser Ala
      210      215      220
Lys Arg Ala Ser Ser Ser Gly Ser Ala Ser Lys Ser Asp Lys Asp Leu
225      230      235      240
Glu Thr Gln Val Ile Gln Leu Asn Glu Gln Val His Ser Leu Lys Leu
      245      250      255
Ala Leu Glu Gly Val Glu Lys Glu Arg Asp Phe Tyr Phe Gly Lys Leu
      260      265      270
Arg Glu Ile Glu Leu Leu Cys Gln Glu His Gly Gln Glu Asn Asp Asp
      275      280      285
Leu Val Gln Arg Leu Met Asp Ile Leu Tyr Ala Ser Glu Glu His Glu
      290      295      300
Gly His Thr Glu Glu Pro Glu Ala Glu Glu Gln Ala His Glu Gln Gln
305      310      315      320
Pro Pro Gln Gln Glu Glu Tyr
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<210> 5737

<211> 340

<212> DNA

<213> Homo sapiens

<400> 5737

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120
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180
ctgccagtga tgaccggtgg tttcctgatg tacctgagag ggcagctgga gcctcagtgg
240
aagatgttgc agtgccatcc tcacctggtg gcttgaaatc ggccaagggtg ggagcattta
300
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340

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<210> 5738

<211> 99

<212> PRT

<213> Homo sapiens

<400> 5738

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Met Leu Pro Pro Trp Pro Ile Ser Ser His Gln Val Arg Met Ala Leu
 1             5             10             15
Gln His Leu Pro Leu Arg Leu Gln Leu Pro Ser Gln Val His Gln Glu
      20             25             30
Thr Thr Gly His His Trp Gln Trp Arg Gly Asp Met Glu His Gly Leu
      35             40             45
Gly Ser Arg Leu Leu Ala Pro Asp Val Gln Pro Gln Thr Pro Pro Val
      50             55             60
Met Gly Glu Val Trp Arg Pro Val Gln Leu Ser Gln Gly His Ala His
65             70             75             80
Leu Ser Leu Gly Ser Val Gly Lys Ala Tyr Pro Lys Ser His Ile Gln
      85             90             95
Gly Gly Xaa

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<210> 5739

<211> 780

<212> DNA

<213> Homo sapiens

<400> 5739

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120
ttactcgtta attggaaaca cctctagcct gtactaaatt tccatattta tttggcccgt
180
ttcaaagtcc tctattctct gctcatctgt ccacatctaa gtgctttaac tattgtggct
240
ttataaaaata ttccaatatc ccataggacc ttatccttag tacttcctat tttaaagttt
300
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360
aaataaaaatc tctgggtatt tccaagggaa gtgaaggact gacaccatga ttagaaagca
420
gagccagcac catggcccgt ccctgagcat gtccagcaaa ccctgccagg ctctgcagct
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cctgagcacc ctgccttcgg gtctgccagt gtgtgggggc cagaagagaa aaacaacca
540
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600
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660
aaggccatgc cagagtccat cgttgcctcc accctacctg tgcaggaaac ctggacatca
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780

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<210> 5740

<211> 120

<212> PRT

<213> Homo sapiens

<400> 5740

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Met Ile Arg Lys Gln Ser Gln His His Gly Pro Ser Leu Ser Met Ser
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Ser Lys Pro Cys Gln Ala Leu Gln Leu Ser Thr Leu Pro Ser Gly
      20           25           30
Leu Pro Val Cys Gly Gly Gln Lys Arg Lys Thr Thr Gln Gly Glu Cys
      35           40           45
Leu Leu Pro Pro Ala Gly Lys Gln Leu Gly His His Leu Ser Glu Ser
      50           55           60
Arg Cys Cys Ser Ser Trp Gln Gln Ser His Ser Glu Arg Ser Cys Val
65           70           75           80
His Cys Leu Ser Gly Arg Pro Cys Gln Ser Pro Ser Leu Pro Pro Pro
      85           90           95
Tyr Leu Cys Arg Lys Pro Gly His His His Phe Lys Ala Leu Pro Ser
      100          105          110
Phe Leu Gly Arg Ala Gln Pro Gln
      115          120

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<210> 5741

<211> 2444 ..

<212> DNA

<213> Homo sapiens

<400> 5741

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120
gagtatgagg cggtgcagc acgcacgag gctatggacc ctgccactgt cgagcagcag
180
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240
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300
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360
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420
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480
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660
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720
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780
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900

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<210> 5742

<211> 427

<212> PRT

<213> Homo sapiens

<400> 5742

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 Pro Gly Val Gly Ala Val Gly Gly Gly Ser Pro Glu Arg Glu Glu Val
 20 25 30
 Gly Ala Gly Tyr Asn Ser Glu Asp Glu Tyr Glu Ala Ala Ala Ala Arg
 35 40 45
 Ile Glu Ala Met Asp Pro Ala Thr Val Glu Gln Gln Glu His Trp Phe
 50 55 60
 Glu Lys Ala Leu Arg Asp Lys Lys Gly Phe Ile Ile Lys Gln Met Lys
 65 70 75 80
 Glu Asp Gly Ala Cys Leu Phe Arg Ala Val Ala Asp Gln Val Tyr Gly
 85 90 95
 Asp Gln Asp Met His Glu Val Val Arg Lys His Cys Met Asp Tyr Leu
 100 105 110
 Met Lys Asn Ala Asp Tyr Phe Ser Asn Tyr Val Thr Glu Asp Phe Thr
 115 120 125
 Thr Tyr Ile Asn Arg Lys Arg Lys Asn Asn Cys His Gly Asn His Ile
 130 135 140
 Glu Met Gln Ala Met Ala Glu Met Tyr Asn Arg Pro Val Glu Val Tyr
 145 150 155 160
 Gln Tyr Ser Thr Glu Pro Ile Asn Thr Phe His Gly Ile His Gln Asn
 165 170 175
 Glu Asp Glu Pro Ile Arg Val Ser Tyr His Arg Asn Ile His Tyr Asn
 180 185 190
 Ser Val Val Asn Pro Asn Lys Ala Thr Ile Gly Val Gly Leu Gly Leu
 195 200 205
 Pro Ser Phe Lys Pro Gly Phe Ala Glu Gln Ser Leu Met Lys Asn Ala
 210 215 220
 Ile Lys Thr Ser Glu Glu Ser Trp Ile Glu Gln Gln Met Leu Glu Asp
 225 230 235 240
 Lys Lys Arg Ala Thr Asp Trp Glu Ala Thr Asn Glu Ala Ile Glu Glu
 245 250 255
 Gln Val Ala Arg Glu Ser Tyr Leu Gln Trp Leu Arg Asp Gln Glu Lys
 260 265 270
 Gln Ala Arg Gln Val Arg Gly Pro Ser Gln Pro Arg Lys Ala Ser Ala
 275 280 285
 Thr Cys Ser Ser Ala Thr Ala Ala Ala Ser Ser Gly Leu Glu Glu Trp
 290 295 300
 Thr Ser Arg Ser Pro Arg Gln Arg Ser Ser Ala Ser Ser Pro Glu His
 305 310 315 320
 Pro Glu Leu His Ala Glu Leu Gly Met Lys Pro Pro Ser Pro Gly Thr
 325 330 335
 Val Leu Ala Leu Ala Lys Pro Pro Ser Pro Cys Ala Pro Gly Thr Ser
 340 345 350
 Ser Gln Phe Ser Ala Gly Ala Asp Arg Ala Thr Ser Pro Leu Val Ser
 355 360 365
 Leu Tyr Pro Ala Leu Glu Cys Arg Ala Leu Ile Gln Gln Met Ser Pro
 370 375 380
 Ser Ala Phe Gly Leu Asn Asp Trp Asp Asp Asp Glu Ile Leu Ala Ser

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385              390              395              400
Val Leu Ala Val Ser Gln Gln Glu Tyr Leu Asp Ser Met Lys Lys Asn
              405              410              415
Lys Val His Arg Asp Pro Pro Pro Asp Lys Ser
              420              425

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<210> 5743
 <211> 550
 <212> DNA
 <213> Homo sapiens

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<400> 5743
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120
cggtctcagg cgtcctcctt ggaccttccc ctatctggct gggcggacac tggtaggatt
180
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240
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360
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420
ccgaaaggtc ccagaacggg gaggccggcc ccctccccgg gttcaccccc gcgcgaatcg
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540
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550

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<210> 5744
 <211> 95
 <212> PRT
 <213> Homo sapiens

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<400> 5744
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Pro Cys Glu Gly Glu Arg Pro Pro Tyr Leu Gly Arg Pro Ala Met Cys
20     25     30
Cys Lys Gly Ala Arg Arg Pro Gly Cys Pro Thr Pro Glu Thr Gly Gln
35     40     45
Gly Gly Arg Pro Pro Lys Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser
50     55     60
Pro Gly Ser Pro Pro Arg Glu Ser Arg Cys Leu Ala Pro Xaa Asp Pro
65     70     75     80
Leu Gly Trp Thr Pro Gly Pro Pro Ala Ala Ala Pro Gly Ala Leu
85     90     95

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<210> 5745
 <211> 849

<212> DNA

<213> Homo sapiens

<400> 5745

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cgataaaaaa caccagggca cggacactcc aggggaaatg cttattgagt aaagtatccg
120
aggaagtgat gcagggcagg taaacagctg gtgctcagca gcgagaggac gcgtcactct
180
gccgtttctgc agggtgacgc cctccccgta cctcgctgag agccacctgc agacacagca
240
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300
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360
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420
aacactggaa caccaggtct ctcatatgcc cgcgaggagg gcccaggga ggcctttctc
480
agcatcagct tttgggtgac aaaccccata cagcaaaact gtacaaatac acacaacgga
540
ccccagctg acagtgagac caggacccta ggaaggtcag gtggtggtga agtcatcccc
600
tctccaaccg agcagagcct ggggttgggc tctgatgacc tcccgggcaa agtgtccagg
660
tgagggaagc aaactcccaa atggggcaca aaggtaataa aaagcagctg agagattgcg
720
ggatggggtc ggggccactt ggccgacacc ttctgcctcg cctggccggg cggggccagc
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840
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849

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<210> 5746

<211> 140

<212> PRT

<213> Homo sapiens

<400> 5746

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Met Thr Ser Pro Pro Pro Asp Leu Pro Arg Val Leu Val Ser Leu Ser
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Ala Gly Gly Pro Leu Cys Val Phe Val Gln Phe Cys Cys Met Gly Phe
20     25     30
Val Thr Gln Lys Leu Met Leu Arg Lys Ala Ser Leu Gly Pro Leu Pro
35     40     45
Arg Ala Ser Glu Arg Pro Gly Val Pro Val Phe Leu Glu Met Gly Pro
50     55     60
Ser Ala Ala Gly Cys Glu Ala Leu Arg Ser Ile Thr Gly Arg Ala Trp
65     70     75     80
Arg Trp Trp Pro Pro Gly Thr Thr Leu Ser Cys Leu Phe Thr Phe His
85     90     95
Tyr Gln Val Phe Ser Gly His Tyr Asp Leu Phe Pro Tyr Asn Ser Asp

```

			100					105				110				
Leu	Cys	Ile	Leu	Leu	Trp	Pro	Ala	Val	Ser	Ala	Gly	Gly	Ser	Gln	Arg	
		115					120					125				
Gly	Thr	Gly	Arg	Ala	Ser	Pro	Cys	Arg	Thr	Ala	Glu					
		130					135				140					

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<210> 5747
<211> 1999
<212> DNA
<213> Homo sapiens
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<400> 5747					
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120					
actcggggcg	ccggggaccc	ggcccgggtac	ctcagccccg	gctggggcag	cgcgagcgag
180					
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240					
gacctggagc	aggagtggaa	gccccgggat	gaggagttga	tcaagaaact	ggtggatcag
300					
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360					
aggaggaaca	agctgggata	tgtgagcggt	aagctactca	catccttcaa	aaaggtgaaa
420					
catcttacac	gggactggag	aaccacagca	catgctttga	agtattcagt	ggtccttgag
480					
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540					
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600					
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660					
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780					
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840					
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900					
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960					
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1020					
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1080					
aagctcagcc	cgtctggcca	ccagaatctc	tttctgagtc	caaatgcctc	cccgtgcaca
1140					
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1200					
gaggaaagta	gactgaactg	cagcaccagc	cctgagatct	tccgcaagtg	tatggattat
1260					

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<211> 492

<212> PRT

<213> Homo sapiens

<400> 5748

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<211> 2849

<212> DNA

<213> Homo sapiens

<400> 5749

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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5754

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Ile Glu Asn Phe Pro Leu Ser Glu Leu Met Thr Glu Ile Ser Thr Gly			
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Val Glu Thr Thr Ala Asn Ser Ser Thr Ser Leu Arg Ser Thr Thr Leu			
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Glu Lys Glu Val Pro Val Ile Phe Ile His Pro Leu Asn Thr Gly Leu			
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Val Arg Gln Thr Val Ile Asn Ile Cys Arg Arg Lys Arg Leu Glu Ser			
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Asp Ser Tyr Ser Pro Pro His Val Arg Arg Lys Gln Lys Ile Thr Asp			
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<212> DNA

<213> Homo sapiens

<400> 5755

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<211> 415

<212> PRT

<213> Homo sapiens

<400> 5756

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<212> DNA
<213> Homo sapiens
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<212> PRT

<213> Homo sapiens

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<212> DNA
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<210> 5760

<211> 273

<212> PRT

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5762

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Leu	Gln	Ser	Leu	Leu	Glu	Ser	Leu	Thr	Cys	Pro	Pro	Tyr	Thr	Pro	Thr
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<212> PRT

<213> Homo sapiens

<400> 5764

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<211> 3220

<212> DNA

<213> Homo sapiens

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<210> 5766

<211> 873

<212> PRT

<213> Homo sapiens

<400> 5766

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His	Leu	Ala	Asn	Ser	Trp	Glu	Ser	Ser	Val	Gly	Ser	Leu	Val	Glu	Gly
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Lys Val	Ala Ser	Asp Thr	Gln Phe	Tyr Pro	Gly Leu	Gly Leu	Ala Leu													
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Ala Phe	His Asp	Gly Ser	Val His	Ile Val	His Arg	Leu Ser	Leu Gln													
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Pro Ala	Met Lys	Arg Pro	Arg Thr	Ala Gly	Pro Ala	Val His	Leu Lys													
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Pro Ser	Met Val	Gln Ser	Leu Val	Glu Lys	Leu His	Glu Thr	Tyr Thr													
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Met Lys	Ala Ser	Leu Cys	Lys Leu	Ser Pro	Cys Thr	Val Thr	Arg Val													
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Cys Asp	Tyr His	Thr Lys	Leu Phe	Leu Ile	Ala Ile	Ser Ser	Thr Leu													
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Lys Ser	Leu Leu	Arg Pro	His Phe	Leu Asn	Thr Pro	Asp Lys	Ser Pro													
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Gly Asp	Arg Leu	Thr Glu	Ile Cys	Thr Lys	Ile Thr	Asp Val	Asp Ile													
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Pro Gly	His Ser	Phe Leu	Arg Asp	Gly Thr	Ser Leu	Gly Met	Leu Arg													
	675							680					685							
Glu Leu	Met Val	Val Ile	Arg Ile	Trp Gly	Leu Leu	Lys Pro	Ser Cys													
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705					710															

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Gly Arg Ala Pro Thr	Leu Pro Gly Ser Ala Ala	Thr Leu Gln Leu Asp		
785	790	795	800	
Gly Leu Ala Arg Ala	Pro Gly Gln Pro Lys Ile	Asp His Leu Arg Arg		
	805	810	815	
Leu His Leu Gly Ala	Cys Pro Thr Glu Glu Cys	Lys Ala Cys Thr Arg		
	820	825	830	
Cys Gly Cys Val Thr	Met Leu Lys Ser Pro Asn	Arg Thr Thr Ala Val		
	835	840	845	
Lys Gln Trp Glu Gln	Arg Trp Ile Lys Asn Cys	Leu Cys Gly Gly Leu		
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<210> 5767

<211> 1910

<212> DNA

<213> Homo sapiens

<400> 5767

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1020

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<210> 5768

<211> 360

<212> PRT

<213> Homo sapiens

<400> 5768

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		20						25					30		
Thr	Cys	Glu	Asn	Trp	Arg	Glu	Ile	His	His	Leu	Val	Phe	His	Val	Ala
		35					40					45			
Asn	Ile	Cys	Phe	Ala	Val	Gly	Leu	Val	Ile	Pro	Thr	Thr	Leu	His	Leu
	50					55				60					
His	Met	Ile	Phe	Leu	Arg	Gly	Met	Leu	Thr	Leu	Gly	Cys	Thr	Leu	Tyr
65				70					75					80	
Ile	Val	Trp	Ala	Thr	Leu	Tyr	Arg	Cys	Ala	Leu	Asp	Ile	Met	Ile	Trp
		85						90						95	
Asn	Ser	Val	Phe	Leu	Gly	Val	Asn	Ile	Leu	His	Leu	Ser	Tyr	Leu	Leu
		100						105					110		
Tyr	Lys	Lys	Arg	Pro	Val	Lys	Ile	Glu	Lys	Glu	Leu	Ser	Gly	Met	Tyr
	115					120						125			
Arg	Arg	Leu	Phe	Glu	Pro	Leu	Arg	Val	Pro	Pro	Asp	Leu	Phe	Arg	Arg

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Tyr Ala Ala Glu Asp Lys Thr Ser Val Asp Asp Arg Leu Ser Ile Leu		160
	165	170
Leu Lys Gly Lys Met Lys Val Ser Tyr Arg Gly His Phe Leu His Asn		175
	180	185
Ile Tyr Pro Cys Ala Phe Ile Asp Ser Pro Glu Phe Arg Ser Thr Gln		190
	195	200
Met His Lys Gly Glu Lys Phe Gln Val Thr Ile Ile Ala Asp Asp Asn		205
	210	215
Cys Arg Phe Leu Cys Trp Ser Arg Glu Arg Leu Thr Tyr Phe Leu Glu		220
225	230	235
Ser Glu Pro Phe Leu Tyr Glu Ile Phe Arg Tyr Leu Ile Gly Lys Asp		240
	245	250
Ile Thr Asn Lys Leu Tyr Ser Leu Asn Asp Pro Thr Leu Asn Asp Lys		255
	260	265
Lys Ala Lys Lys Leu Glu His Gln Leu Ser Leu Cys Thr Gln Ile Ser		270
	275	280
Met Leu Glu Met Arg Asn Ser Ile Ala Ser Ser Ser Asp Ser Asp Asp		285
	290	295
Gly Leu His Gln Phe Leu Arg Ser Thr Ser Ser Met Ser Ser Leu His		300
305	310	315
Val Ser Ser Pro His Gln Arg Ala Ser Ala Lys Met Lys Pro Ile Glu--		320
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<210> 5769

<211> 427

<212> DNA

<213> Homo sapiens

<400> 5769

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180

gtaaaggaga gcaaattgag ttcttcaatg aatagcatca agatcttctg gggcccagag
240

ctgaagaagg aacgagccct gagaaaggat gaagcttcca aaatcccat ttggaaggaa
300

cagtacagag ttgtacaaga ggaaaaccag gtaagttcta cgtgtgttta cctttattgg
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<210> 5770

<211> 85
 <212> PRT
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<400> 5770
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 35 40 45
 Lys Asp Glu Ala Ser Lys Ile Pro Ile Trp Lys Glu Gln Tyr Arg Val
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 Val Gln Glu Glu Asn Gln Val Ser Ser Thr Cys Val Tyr Leu Tyr Trp
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<210> 5771
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 <212> DNA
 <213> Homo sapiens

<400> 5771
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<210> 5772

<211> 642

<212> PRT

<213> Homo sapiens

<400> 5772

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 Leu Asp Tyr Gly Phe Met Lys Glu Val Thr Phe His Cys His Gly Leu
 50 55 60
 His Leu Ala Arg Cys Ser Lys Thr His Leu Ser Val Arg Gly Asn Trp
 65 70 75 80
 Asp Ala Glu Ile Pro Leu Cys Lys Pro Val Asn Cys Gly Pro Pro Glu
 85 90 95
 Asp Leu Ala His Gly Phe Pro Asn Gly Phe Ser Phe Ile His Gly Gly
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 His Ile Gln Tyr Gln Cys Phe Pro Gly Tyr Lys Leu His Gly Asn Ser
 115 120 125
 Ser Arg Arg Cys Leu Ser Asn Gly Ser Trp Ser Gly Ser Ser Pro Ser
 130 135 140
 Cys Leu Pro Cys Arg Cys Ser Thr Pro Val Ile Glu Tyr Gly Thr Val
 145 150 155 160
 Asn Gly Thr Asp Phe Asp Cys Gly Lys Ala Ala Arg Ile Gln Cys Phe
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 Lys Gly Phe Lys Leu Leu Gly Leu Ser Glu Ile Thr Cys Glu Ala Asp
 180 185 190
 Gly Gln Trp Ser Ser Gly Phe Pro His Cys Glu His Thr Ser Cys Gly
 195 200 205
 Ser Leu Pro Met Ile Pro Asn Ala Phe Ile Ser Glu Thr Ser Ser Trp
 210 215 220
 Lys Glu Asn Val Ile Thr Tyr Ser Cys Arg Ser Gly Tyr Val Ile Gln
 225 230 235 240
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 245 250 255
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 260 265 270
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 Gly Tyr Thr Phe Glu Gly Val Asn Ile Ser Val Cys Gln Leu Asp Gly

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385	390	395
Thr Phe Glu Ser Thr Ile Ile Tyr Gln Cys Glu Pro Gly Tyr Glu Leu		400
405	410	415
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Gly Val Ala Ile Cys Lys Glu Thr Arg Cys Glu Thr Pro Leu Glu Phe		
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Leu Asn Gly Lys Ala Asp Ile Glu Asn Arg Thr Thr Gly Pro Asn Val		
450	455	460
Val Tyr Ser Cys Asn Arg Gly Tyr Ser Leu Glu Gly Pro Ser Glu Ala		
465	470	475
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485	490	495
Pro Asn Pro Cys Pro Val Pro Phe Val Ile Pro Glu Asn Ala Leu Leu		
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Ser Glu Lys Glu Phe Tyr Val Asp Gln Asn Val Ser Ile Lys Cys Arg		
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Glu Thr Trp Thr Gln Thr Ser Ala Lys Cys Glu Lys Ile Ser Cys Gly		
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Pro Pro Ala His Val Glu Asn Ala Ile Ala Arg Gly Val His Tyr Gln		
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595	600	605
Pro Ile Cys Arg Ala Val Cys Arg Phe Pro Cys Gln Asn Gly Gly His		
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<210> 5773

<211> 579

<212> DNA

<213> Homo sapiens

<400> 5773

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gtgtcccggc gcgagcggga ccgggagcgc cctcgtcccc gcccgaccgc atcgacatct
300

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tcgggcgcac ggtgagcaag cgcagcagcc tggacgagaa gcagaagcga gaggaggagg
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 agaagaaagc ggagttcgag cggcagcgaa aaattcgaca gcaagaaata gaagaaaaac
 420
 tcatcgagga agaaacagca cgaagagtag aagaattggt agcaanaaag ggtggaggaa
 480
 gaactggaga aaaggaagga tgaaattgaa cgagaagttc tccgaagggt ggaggaagcc
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<210> 5774

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5774

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Met	Gly	Arg	Ser	Arg	Ser	Arg	Ser	Ser	Ser	Arg	Ser	Lys	His	Thr	Lys
			20					25					30		
Ser	Ser	Lys	His	Asn	Lys	Lys	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg
		35					40					45			
Asp	Lys	Glu	Arg	Val	Arg	Lys	Arg	Ser	Lys	Ser	Arg	Glu	Ser	Lys	Arg
	50					55				60					
Asn	Arg	Arg	Arg	Glu	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Thr	Asn	Thr	Ala
65					70					75				80	
Val	Ser	Arg	Arg	Glu	Arg	Asp	Arg	Glu	Arg	Pro	Arg	Pro	Arg	Pro	Thr
			85					90						95	
Ala	Ser	Thr	Ser	Ser	Gly	Ala	Arg								
			100												

<210> 5775

<211> 1441

<212> DNA

<213> Homo sapiens

<400> 5775

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 120
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 300
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 360
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 420
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 480

ctcggtgcagc aagcagcggc cgggcccagag ggtgcccgcg agcgggctgc cgagctggga
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 600
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 660
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 720
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 840
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 960
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 1020
 gactgcggca agagcttcag ccacagctcg cacctcatca agcaccagcg caccacccgt
 1080
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 1320
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 1441

<210> 5776

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5776

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Leu	Gln	Asp	Val	Glu	Glu	Val	Glu	Ile	Gly	Arg	Asp	Thr	Phe	Trp	Pro
		20						25					30		
Asp	Ser	Glu	Pro	Lys	Pro	Glu	Gln	Ala	Pro	Arg	Ser	Pro	Gly	Ser	Gln
		35					40					45			
Ala	Pro	Asp	Glu	Gly	Ala	Gly	Gly	Ala	Leu	Arg	Thr	Ser	Val	Arg	Ser
		50				55					60				
Leu	Pro	Arg	Arg	Ala	Arg	Cys	Ser	Ala	Gly	Phe	Gly	Pro	Glu	Ser	Ser
65				70						75				80	
Ala	Glu	Arg	Pro	Ala	Gly	Gln	Pro	Pro	Gly	Ala	Val	Pro	Cys	Ala	Gln
			85					90						95	
Pro	Arg	Gly	Ala	Trp	Arg	Val	Thr	Leu	Val	Gln	Gln	Ala	Ala	Ala	Gly


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      100      105      110
Pro Glu Gly Ala Pro Glu Arg Ala Ala Glu Leu Gly Val Asn Phe Gly
      115      120      125
Arg Ser Arg Gln Gly Ser Ala Arg Gly Thr Lys Pro His Arg Cys Glu
      130      135      140
Ala Cys Gly Lys Ser Phe Lys Tyr Asn Ser Leu Leu Leu Lys His Gln
      145      150      155      160
Arg Ile His Thr Gly Glu Lys Pro Tyr Ala Cys His Glu Cys Gly Lys
      165      170      175
Cys Phe Ala Ala Ala Ser Arg Phe Ile Gln His Gln Arg Ile His Ser
      180      185      190
Gly Glu Lys Pro Tyr Ala Cys Pro Glu Cys Ser Lys Thr Phe Thr Arg
      195      200      205
Ser Ser Asn Leu Ile Lys His Gln Val Ile His Ser Gly Glu Arg Pro
      210      215      220
Phe Ala Cys Gly Asp Cys Gly Lys Leu Phe Arg Arg Ser Phe Ala Leu
      225      230      235      240
Leu Glu His Ala Arg Val His Ser Gly Glu Lys Pro Tyr Glu Cys Ser
      245      250      255
Asp Cys Gly Lys Cys Phe Arg Gly Arg Ser His Phe Phe Arg His Asn
      260      265      270
Arg Thr His Thr Gly Glu Lys Pro Tyr His Cys Leu Asp Cys Gly Lys
      275      280      285
Ser Phe Ser His Ser Ser His Leu Ile Lys His Gln Arg Thr His Arg
      290      295      300
Gly Val Arg Pro Tyr Ala Cys Pro Leu Cys Gly Lys Ser Phe Ser Arg
      305      310      315      320
Arg Ser Asn Leu His Arg His Glu Lys Ile His Thr Thr Gly Pro Lys
      325      330      335
Ala Leu Ala Met Leu Met Leu Gly Ala Ala Ala Ala Gly Ala Leu Ala
      340      345      350
Thr Pro Pro Pro Ala Pro Thr
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<210> 5777

<211> 1431

<212> DNA

<213> Homo sapiens

<400> 5777

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120
tgcgtgcggc ctgcctcaag caaccaggta cgtaggtcgg cgcccagct cggcgctgcg
180
gtgggagccg gagggcgaca gtcagagccg gggtgccagc gggacgcgac cgccagatcc
240
acttaggacc ccgtcgttct gcgaagcggc cacgtctgag tcccggggcc tcctcgtgct
300
gcagatgtcg ccttaggacc tcggccagga taccctctgc catgctcttg tgctgcccg
360
gatcaccgac tggcccttgt aagcaccttc gcagcaggaa gcccagagct gcgcctgccc
420

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 gaggtctgtc ggagctgccc ttcagtgtga gcatccacaa tgggtacccc agcctcggtg
 540
 gtcagtgagc caccctcttg gcaggccccg attgaggccc ggggcccgaac gcaggcctcg
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 gccaacatct tccaggacgc cgagctgctg cagatccaag ccctgtttca acgcagcggg
 660
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 960
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 1020
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 1080
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 1200
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 1320
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<210> 5778

<211> 164

<212> PRT

<213> Homo sapiens

<400> 5778

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Gln	Ala	Lys	Met	Arg	Pro	Leu	Gln	Pro	Leu	Pro	Gln	Pro	Ser	Glu	Arg
			20					25					30		
Ala	Gly	Ala	Ala	Leu	Gly	Phe	Leu	Leu	Arg	Arg	Cys	Leu	Gln	Gly	Pro
		35				40					45				
Val	Gly	Asp	His	Gly	Gln	His	Lys	Ser	Met	Ala	Glu	Gly	Ile	Leu	Ala
	50				55					60					
Glu	Val	Leu	Arg	Arg	His	Leu	Gln	His	Glu	Glu	Ala	Pro	Gly	Leu	Arg
65					70				75					80	
Arg	Gly	Arg	Phe	Ala	Glu	Arg	Arg	Gly	Pro	Lys	Trp	Ile	Trp	Arg	Ser
			85					90						95	
Arg	Pro	Ala	Gly	Thr	Pro	Ala	Leu	Thr	Val	Ala	Leu	Arg	Leu	Pro	Pro

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          100          105          110
Gln Arg Arg Ala Gly Pro Pro Thr Tyr Val Pro Gly Cys Leu Arg Gln
          115          120          125
Ala Ala Arg Ser Pro Lys Leu Val Arg Ala Thr Trp Val Thr Ala Ala
          130          135          140
Val Pro Gly Arg Lys Arg Ser Leu Ala Pro Glu Gln Pro Ile Leu Gly
145          150          155          160
Pro Ser Gln Val

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<210> 5779
 <211> 371
 <212> DNA
 <213> Homo sapiens

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<400> 5779
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120
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180
gtgtgtgggt gtgtaggtgt gtgtgggtgt gtgcaccagt gcagggtgtgc atgggtgtgt
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371

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<210> 5780
 <211> 123
 <212> PRT
 <213> Homo sapiens

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<400> 5780
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Gln Arg His Gly Arg Glu Arg Gly Val Ile Ser Ala Leu Ser Gly Ile
20     25     30
Pro Cys Val Cys Xaa Arg Val Cys Ala His Gly Asn Val Cys Gly Cys
35     40     45
Val Cys Val His Ala Ala Val Cys Gly Cys Ala Xaa Val Cys Gly Cys
50     55     60
Val Gly Val Cys Gly Cys Val His Gln Cys Arg Cys Ala Trp Val Cys
65     70     75     80
Thr Gly Gly Cys Val Tyr Val Cys Gly Gly Val Pro Ile Cys Ala Gly
85     90     95
Val Trp Val Cys Arg Val Xaa Cys Leu Cys Val Gly Val Xaa Pro Cys
100    105    110
Val Pro Leu Trp Arg Cys Val Gly Val Cys Ser
115    120

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<210> 5781
 <211> 845
 <212> DNA
 <213> Homo sapiens

<400> 5781
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 120
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 180
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 240
 cccgaagcat tgcagccagg agtgcagcgt gggggccctg caggccatgg ccaggcccca
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 360
 tgcagctcag gaaaccaccg gtcactactg gcagtggcgt ggagacatgg aacatggata
 420
 gggcagccgc ctcttggccc ctgatgttca gccacagact cctcccgta tgggcgaggt
 480
 ctggaggccg gtccagctgt cccagggcca cgcacagcag cctggaagaa gagctggcct
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 600
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 660
 ctctgggctc cgtgggacag gcctctccga acagccacat ccagggtggc tgctgcagca
 720
 gaggtctggag tggctgctat accactgttc acctgtggga tgaataaaca gtggagaatg
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 ctctg
 845

<210> 5782
 <211> 147
 <212> PRT
 <213> Homo sapiens

<400> 5782
 Gly Val Pro Cys Pro Lys Ile Glu Gly Ala Val Gly Leu Gly Ser Gly
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 Ser Arg Pro Arg Gly Ala Gly Val Arg Cys His Phe Cys Gly Val Asn
 20 25 30
 Ala Pro Thr Leu Ala Asp Phe Lys Pro Pro Gly Glu Asp Gly Thr Ala
 35 40 45
 Thr Ser Ser Thr Glu Ala Pro Ala Ala Leu Ser Gly Thr Ser Gly Pro
 50 55 60
 Gly Xaa Ser Ser Pro Pro Gly Gly Pro Gly Leu Gly Pro Leu Pro Ala
 65 70 75 80
 Pro Glu Ala Leu Gln Pro Gly Val Gln Arg Gly Gly Pro Ala Gly His

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<210> 5783
<211> 1839
<212> DNA
<213> Homo sapiens
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<400> 5783
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120
gctgggactc tccttcttag tacacaccga ctgatttga gagatcagaa aaatcatgag
180
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240
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300
ccattccaga gtagtaagaa ctctacatc aaactctcct tcaaagaaca tggccagatt
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480
gtaggtattg aaaggaaact ggaagaaaaa agaaaagaaa ctgacaaaaa catttctgag
540
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600
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660
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720
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780
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900
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1140

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 1320
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 1440
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 aaaaatgaaa taattttatt tgacacatta tttatatata ttctatctag gtttctcttt
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<210> 5784

<211> 386

<212> PRT

<213> Homo sapiens

<400> 5784

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Leu	Val	Ile	Gln	Gln	Arg	Gly	Val	Arg	Ile	Tyr	Asp	Gly	Glu	Glu	Lys
			20					25					30		
Ile	Lys	Phe	Asp	Ala	Gly	Thr	Leu	Leu	Leu	Ser	Thr	His	Arg	Leu	Ile
			35				40					45			
Trp	Arg	Asp	Gln	Lys	Asn	His	Glu	Cys	Cys	Met	Ala	Ile	Leu	Leu	Ser
	50				55					60					
Gln	Ile	Val	Phe	Ile	Glu	Gln	Ala	Ala	Gly	Ile	Gly	Lys	Ser	Ala	
65				70					75					80	
Lys	Ile	Val	Val	His	Leu	His	Pro	Ala	Pro	Pro	Asn	Lys	Glu	Pro	Gly
			85					90					95		
Pro	Phe	Gln	Ser	Ser	Lys	Asn	Ser	Tyr	Ile	Lys	Leu	Ser	Phe	Lys	Glu
			100					105					110		
His	Gly	Gln	Ile	Glu	Phe	Tyr	Arg	Arg	Leu	Ser	Glu	Glu	Met	Thr	Gln
			115				120				125				
Arg	Arg	Trp	Glu	Asn	Met	Pro	Val	Ser	Gln	Ser	Leu	Gln	Thr	Asn	Arg
	130					135					140				
Gly	Pro	Gln	Pro	Gly	Arg	Ile	Arg	Ala	Val	Gly	Ile	Val	Gly	Ile	Glu
145				150						155				160	
Arg	Lys	Leu	Glu	Glu	Lys	Arg	Lys	Glu	Thr	Asp	Lys	Asn	Ile	Ser	Glu
			165					170					175		
Ala	Phe	Glu	Asp	Leu	Ser	Lys	Leu	Met	Ile	Lys	Ala	Lys	Glu	Met	Val

180 185 190
 Glu Leu Ser Lys Ser Ile Ala Asn Lys Ile Lys Asp Lys Gln Gly Asp
 195 200 205
 Ile Thr Glu Asp Glu Thr Ile Arg Phe Lys Ser Tyr Leu Leu Ser Met
 210 215 220
 Gly Ile Ala Asn Pro Val Thr Arg Glu Thr Tyr Gly Ser Gly Thr Gln
 225 230 235 240
 Tyr His Met Gln Leu Ala Lys Gln Leu Ala Gly Ile Leu Gln Val Pro
 245 250 255
 Leu Glu Glu Arg Gly Gly Ile Met Ser Leu Thr Glu Val Tyr Cys Leu
 260 265 270
 Val Asn Arg Ala Arg Gly Met Glu Leu Leu Ser Pro Glu Asp Leu Val
 275 280 285
 Asn Ala Cys Lys Met Leu Glu Ala Leu Lys Leu Pro Leu Arg Leu Arg
 290 295 300
 Val Phe Asp Ser Gly Val Met Val Ile Glu Leu Gln Ser His Lys Glu
 305 310 315 320
 Glu Glu Met Val Ala Ser Ala Leu Glu Thr Val Ser Glu Lys Gly Ser
 325 330 335
 Leu Thr Ser Glu Glu Phe Ala Lys Leu Val Gly Met Ser Val Leu Leu
 340 345 350
 Ala Lys Glu Arg Leu Leu Leu Ala Glu Lys Met Gly His Leu Cys Arg
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 Gln Ser
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<210> 5785

<211> 785

<212> DNA

<213> Homo sapiens

<400> 5785

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<210> 5786

<211> 159

<212> PRT

<213> Homo sapiens

<400> 5786

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Arg	Ser	His	Ala	Ala	Gly	Glu	Gly	Pro	Ala	Pro	Gly	Ala	Pro	Glu	
			20				25						30		
Lys	Pro	Ala	Ala	Arg	Ala	Ala	Asp	Leu	Ala	Ala	Pro	Ala	Gly	Ala	Ala
			35				40						45		
Leu	Ala	Gln	Pro	Leu	Gly	Pro	Trp	Pro	Leu	Ser	Ser	Ala	Gly	Pro	Arg
			50				55					60			
Leu	Val	Phe	Asn	Arg	Val	Asn	Arg	Arg	Arg	Asp	Pro	Ser	Lys	Ser	Pro
65					70					75					80
Ser	Leu	Gln	Gly	Thr	Gln	Glu	Thr	Tyr	Thr	Leu	Ala	His	Lys	Glu	Asn
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Val	Arg	Phe	Val	Ser	Glu	Ala	Trp	Gln	Gln	Val	Gln	Gln	Gln	Leu	Asp
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Gly	Gly	Pro	Ala	Gly	Glu	Gly	Gly	Pro	Arg	Pro	Val	Gln	Tyr	Val	Glu
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Arg	Thr	Pro	Asn	Pro	Arg	Leu	Gln	Asn	Phe	Val	Pro	Ile	Asp	Leu	Asp
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<212> DNA

<213> Homo sapiens

<400> 5787

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<213> Homo sapiens

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Glu Ile Phe Arg Gln Arg Phe Arg His Leu Arg Tyr Gln Glu Thr Pro			
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Gly Pro Arg Glu Ala Leu Ser Gln Leu Arg Val Leu Cys Cys Glu Trp			
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Leu Arg Pro Glu Lys His Thr Lys Glu Gln Ile Leu Glu Phe Leu Val			
	85	90	95
Leu Glu Gln Phe Leu Thr Ile Leu Pro Glu Glu Leu Gln Ser Trp Val			
	100	105	110
Arg Gly His His Pro Lys Ser Gly Glu Glu Ala Val Thr Val Leu Glu			
	115	120	125
Asp Leu Glu Lys Gly Leu Glu Pro Glu Pro Gln Val Pro Gly Pro Ala			
	130	135	140
His Gly Pro Ala Gln Glu Glu Pro Trp Glu Lys Lys Glu Ser Leu Gly			
145		150	155
Ala Ala Gln Glu Ala Leu Ser Ile Gln Leu Gln Pro Lys Glu Thr Gln			
	165	170	175
Pro Phe Pro Lys Ser Glu Gln Val Tyr Leu His Phe Leu Ser Val Val			
	180	185	190
Thr Glu Asp Gly Pro Glu Pro Lys Asp Lys Gly Ser Leu Pro Gln Pro			
	195	200	205
Pro Ile Thr Glu Val Glu Ser Gln Val Phe Ser Glu Lys Leu Ala Thr			
	210	215	220
Asp Thr Ser Thr Phe Glu Ala Thr Ser Glu Gly Thr Leu Glu Leu Gln			
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Gln Arg Asn Pro Lys Ala Glu Arg Leu Arg Trp Ser Pro Ala Gln Glu			
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Glu Ser Phe Arg Gln Met Val Val Ile His Lys Glu Ile Pro Thr Gly			
	260	265	270
Lys Lys Asp His Glu Cys Ser Glu Cys Gly Lys Thr Phe Ile Tyr Asn			
	275	280	285
Ser His Leu Val Val His Gln Arg Val His Ser Gly Glu Lys Pro Tyr			
	290	295	300
Lys Cys Ser Asp Cys Gly Lys Thr Phe Lys Gln Ser Ser Asn Leu Gly			
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      35           40           45
Pro Gln Pro Gly Ala Gly His Asp Glu Gly Pro Gly Ser Gly Trp Ala
      50           55           60
Ala Lys Gly Thr Val Arg Gly Trp Asn Arg Arg Ala Arg Glu Ser Pro
65           70           75           80
Gly His Val Ser Glu Pro Asp Arg Thr Gln Leu Ser Gln Asp Leu Gly
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Gly Gly Thr Leu Ala Met Asp Thr Leu Pro Asp Asn Arg Thr Arg Val
      100          105          110
Val Glu Asp Asn His Ser Tyr Tyr Val Ser Arg Leu Tyr Gly Pro Ser
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Glu Pro His Ser Arg Glu Leu Trp Val Asp Val Ala Glu Ala Asn Arg
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Ser Gln Val Lys Ile His Thr Ile Leu Ser Asn Thr His Arg Gln Ala
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Ser Arg Val Val Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Pro Leu
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Arg Gln Ile Thr Ile Ala Thr Gly Gly Phe Ile Phe Met Gly Asp Val
      180          185          190
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      195          200          205
Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr Val Val Tyr Phe Asp
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Asn Gly Thr Val Phe Val Val Gln Trp Asp His Val Tyr Leu Gln Gly
225          230          235          240
Trp Glu Asp Lys Gly Ser Phe Thr Phe Gln Ala Ala Leu His His Asp
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Gly Arg Ile Val Phe Ala Tyr Lys Glu Ile Pro Met Ser Val Pro Glu
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<212> DNA

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<211> 479

<212> PRT

<213> Homo sapiens

<400> 5792

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Tyr	Pro	Leu	Asn	Asn	Phe	Ser	Val	Ala	Lys	Cys	Gln	Leu	Met	Lys	Thr
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Thr	Val	Ile	Glu	Arg	Thr	Phe	His	Val	Asp	Thr	Pro	Glu	Glu	Arg	Glu
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<211> 2767

<212> DNA

<213> Homo sapiens

<400> 5793

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 <213> Homo sapiens

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 Lys Val Tyr Asp Ser Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala
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<400> 5795

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<212> PRT

<213> Homo sapiens

<400> 5796

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			20					25					30		
Tyr	Leu	Arg	Lys	Glu	Met	Thr	Gln	Asn	Ile	Tyr	Gln	Met	Ala	Thr	Phe
			35				40					45			
Gly	Thr	Thr	Ala	Gly	Phe	Ser	Gly	Ile	Phe	Ser	Asn	Phe	Leu	Phe	Arg
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Arg	Cys	Phe	Lys	Val	Lys	His	Asp	Ala	Leu	Lys	Thr	Tyr	Ala	Ser	Leu
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Gln Thr Gln Met Lys Leu Met Ala Ile Pro Leu Val Phe Gln Ile Met
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35     40     45
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Glu Gly Arg Thr Ser Ser Tyr Gln Gly Asn Gln Gly Ser Leu Arg Pro
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<211> 4261

<212> DNA

<213> Homo sapiens

<400> 5799

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<211> 535

<212> PRT

<213> Homo sapiens

<400> 5800

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<211> 350

<212> PRT

<213> Homo sapiens

<400> 5802

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<210> 5803

<211> 692

<212> DNA

<213> Homo sapiens

<400> 5803

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<210> 5804
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 5804
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 Glu His Arg Asn Phe Lys Pro Val Val Tyr His Gly Val Asn Leu Asp
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 Gln Thr Val Lys Glu Phe Ile Val Phe Leu Lys Gln Asp Val Pro Leu
 35 40 45
 Arg Thr Asn Leu Pro Pro Pro Phe Arg Asn Tyr Lys Tyr Asp Ala Leu
 50 55 60
 Lys Ile Ile His Gln Ala His Lys Ser Lys Thr Asn Glu Leu Val Leu
 65 70 75 80
 Ser Leu Glu Asp Asp Glu Arg Leu Leu Leu Lys Glu Asp Ser Thr Leu
 85 90 95
 Lys Ala Ala Gly Ile Ala Ser Glu Thr Glu Ile Ala Phe Phe Cys Glu
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 Glu Asp Tyr Arg Asn Tyr Lys Ala Asn Pro Ile Ser Ser Trp
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<210> 5805
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<210> 5806

<211> 105

<212> PRT

<213> Homo sapiens

<400> 5806

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		20					25						30		
Leu	Ser	Pro	Arg	Lys	Asp	Gly	Leu	Ser	Tyr	Gln	Ile	Phe	Pro	Asp	Pro
		35				40						45			
Ser	Asp	Phe	Asp	Arg	Cys	Cys	Lys	Leu	Lys	Asp	Arg	Leu	Pro	Ser	Ile
	50					55				60					
Val	Val	Glu	Pro	Thr	Glu	Gly	Glu	Val	Glu	Ser	Gly	Glu	Leu	Arg	Trp
65					70				75					80	
Pro	Pro	Glu	Glu	Phe	Leu	Val	Gln	Glu	Asp	Glu	Gln	Asp	Asn	Cys	Glu
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100

105

<210> 5807

<211> 1429

<212> DNA

<213> Homo sapiens

<400> 5807

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<210> 5808

<211> 261

<212> PRT

<213> Homo sapiens

<400> 5808

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35 40 45
Trp Leu Ala Ala Leu Gln Asp Arg Ser Ile Leu Ala Pro Leu Ala Trp
50 55 60
Asp Leu Gly Leu Leu Leu Phe Val Gly Gln His Ser Leu Met Ala
65 70 75 80
Ala Glu Arg Val Lys Ala Trp Thr Ser Arg Tyr Phe Gly Val Leu Gln
85 90 95
Arg Ser Leu Tyr Val Ala Cys Thr Ala Leu Ala Leu Gln Leu Val Met
100 105 110
Arg Tyr Trp Glu Pro Ile Pro Lys Gly Pro Val Leu Trp Glu Ala Arg
115 120 125
Ala Glu Pro Trp Ala Thr Trp Val Pro Leu Leu Cys Phe Val Leu His
130 135 140
Val Ile Ser Trp Leu Leu Ile Phe Ser Ile Leu Leu Val Phe Asp Tyr
145 150 155 160
Ala Glu Leu Met Gly Leu Lys Gln Val Tyr Tyr His Val Leu Gly Leu
165 170 175
Gly Glu Pro Leu Ala Leu Lys Ser Pro Arg Ala Leu Arg Leu Phe Ser
180 185 190
His Leu Arg His Pro Val Cys Val Glu Leu Leu Thr Val Leu Trp Val
195 200 205
Val Pro Thr Leu Gly Thr Asp Arg Leu Leu Leu Ala Phe Leu Leu Thr
210 215 220
Leu Tyr Leu Gly Leu Ala His Gly Leu Asp Gln Gln Asp Leu Arg Tyr
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<210> 5809

<211> 2009

<212> DNA

<213> Homo sapiens

<400> 5809

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 2009

<210> 5810

<211> 52

<212> PRT

<213> Homo sapiens

<400> 5810

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Gly	Gly	Gln	Trp	Arg	Asp	Leu	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Gly
			20				25				30			
Phe	Lys	Gln	Phe	Ser	Cys	Leu	Ser	Leu	Leu	Ser	Ser	Trp	His	Tyr
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His	Pro	Thr	Pro											
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<210> 5811

<211> 1607

<212> DNA

<213> Homo sapiens

<400> 5811

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<210> 5812

<211> 463

<212> PRT

<213> Homo sapiens

<400> 5812

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			20					25					30		
Thr	Pro	Gln	Ala	Ile	Glu	Pro	Gln	Ala	Ile	Val	Gln	Gln	Val	Pro	Ala
			35					40					45		
Pro	Ser	Arg	Met	Gln	Met	Pro	Gln	Gly	Asn	Pro	Leu	Leu	Leu	Ser	His
			50					55					60		
Thr	Leu	Gln	Glu	Leu	Leu	Ala	Arg	Asp	Thr	Val	Gln	Val	Glu	Leu	Ile
65						70				75				80	
Pro	Glu	Lys	Lys	Gly	Leu	Phe	Leu	Lys	His	Val	Glu	Tyr	Glu	Val	Ser
				85					90					95	
Ser	Gln	Arg	Phe	Lys	Ser	Ser	Val	Tyr	Arg	Arg	Tyr	Asn	Asp	Phe	Val
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Val	Phe	Gln	Glu	Met	Leu	Leu	His	Lys	Phe	Pro	Tyr	Arg	Met	Val	Pro

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Pro Leu Phe Ser Glu Asp Val Val Leu Lys Leu Phe Leu Ser Phe Ser
      165              170              175
Gly Ser Asp Val Gln Asn Lys Leu Lys Glu Ser Ala Gln Cys Val Gly
      180              185              190
Asp Glu Phe Leu Asn Cys Lys Leu Ala Thr Arg Ala Lys Asp Phe Leu
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Pro Ala Asp Ile Gln Ala Gln Phe Ala Ile Ser Arg Glu Leu Ile Arg
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Asn Ile Tyr Asn Ser Phe His Lys Leu Arg Asp Arg Ala Glu Arg Ile
225              230              235              240
Ala Ser Arg Ala Ile Asp Asn Ala Ala Asp Leu Leu Ile Phe Gly Lys
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      260              265              270
Ala Leu Asn Ser Ser Thr Trp Gly Ser Leu Lys Gln Ala Leu Lys Gly
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      290              295              300
Lys Gln Glu Glu Asn Asp Val Val Glu Lys Leu Asn Leu Phe Leu Asp
305              310              315              320
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Gln Met Met Ser Ala Thr Ala Gln Asn Arg Glu Pro Glu Ser Val Glu
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Gln Leu Glu Ser Arg Ile Val Glu Gln Glu Asn Ala Ile Gln Thr Met
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Glu Leu Arg Asn Tyr Phe Ser Leu Tyr Cys Leu His Gln Glu Thr Gln
385              390              395              400
Leu Ile His Val Tyr Leu Pro Leu Thr Ser His Ile Leu Arg Ala Phe
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Val Asn Ser Gln Ile Gln Gly His Lys Glu Met Ser Lys Val Trp Asn
      420              425              430
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<210> 5813

<211> 2991

<212> DNA

<213> Homo sapiens

<400> 5813

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120

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 1980
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 2100
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 2160
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 2820
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 2880
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<210> 5814

<211> 149

<212> PRT

<213> Homo sapiens

<400> 5814

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Tyr	His	Pro	Asp	Lys	His	Arg	Asp	Pro	Glu	Leu	Lys	Ser	Gln	Ala	Glu
			20					25					30		
Arg	Leu	Phe	Asn	Leu	Val	His	Gln	Ala	Tyr	Glu	Val	Leu	Ser	Asp	Pro

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      35      40      45
Gln Thr Arg Ala Ile Tyr Asp Ile Tyr Gly Lys Arg Gly Leu Glu Met
      50      55      60
Glu Gly Trp Glu Val Val Glu Arg Arg Arg Thr Pro Ala Glu Ile Arg
65      70      75      80
Glu Glu Phe Glu Arg Leu Gln Arg Glu Arg Glu Glu Arg Arg Leu Gln
      85      90      95
Gln Arg Thr Asn Pro Lys Leu Cys Asp Asn Lys Leu Cys Ser Ala Val
      100      105      110
Phe Ile Pro Trp Asn Pro Thr Arg Pro Asp His Cys Pro Ser Ser Glu
      115      120      125
Pro Arg Gln Glu His Arg Gly Leu Pro Ala Val Ala Met Gly Tyr Pro
      130      135      140
Val Ser His Glu His
145

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<210> 5815

<211> 590

<212> DNA

<213> Homo sapiens

<400> 5815

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240
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360
gccctccagc ttcccaacaa gggacagcac ctctcctgtg gggtcatccc ggcgggtccg
420
gtcaatgaga gaacggtcag cttggagcac aagattcgag ttcgccttgt actcgtattg
480
cagactacgg gcggttacat ccgccatggc cgcggtgctc cggaggcttc agaccaccac
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<210> 5816

<211> 196

<212> PRT

<213> Homo sapiens

<400> 5816

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Phe Ile Gln Ala Ala Leu Gly Asp Gln Pro Arg Asp Ile Leu Cys Gly
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Ala Ala Asp Glu Val Leu Ala Val Leu Lys Asn Glu Lys Leu Arg Asp
20      25      30
Lys Glu Arg Arg Lys Glu Ile Asp Leu Leu Leu Gly Gln Thr Asp Asp

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```

      35              40              45
Thr Arg Tyr His Val Leu Val Asn Leu Gly Leu Pro Ser Leu Phe Ser
  50              55              60
Phe Gly Leu Val Asp Asp Ala His His Leu Ile Asn Ala Leu Arg Gln
  65              70              75              80
Gln Ser Ile Thr Leu His Leu Val Asp Val Met Pro Val Leu Ile Thr
      85              90              95
Leu Ser Ser Leu Gly Ser Ser Phe Leu Leu His Leu Arg Phe Gly Pro
      100              105              110
Leu Ser Leu Val Ser His Thr Gly Ala Leu Gln Leu Pro Asn Lys Gly
      115              120              125
Gln His Leu Ser Cys Gly Phe Ile Pro Ala Gly Pro Val Asn Glu Arg
      130              135              140
Thr Val Ser Leu Glu His Lys Ile Arg Val Arg Leu Val Leu Val Leu
  145              150              155              160
Gln Thr Thr Gly Gly Tyr Ile Arg His Gly Arg Gly Cys Ser Glu Ala
      165              170              175
Ser Asp His His Ala Ser Ile Pro Gln Ala Ala Asn Gly Arg Arg Ser
      180              185              190
Leu Leu Leu Ala
      195

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<210> 5817

<211> 648

<212> DNA

<213> Homo sapiens

<400> 5817

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120
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240
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agtgggatag ttaccaatgg gtccttcagc agcagtaatg cagaaggctt tgagaaaacc
360
caaaccaccc ccaatgggag cctacaggcc agaaggagct cttcactgaa ggtatctggt
420
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480
gacacactcg ggaacccac aaatgttcga aacatgagct ggctgccaaa tggctatgtg
540
accctgaggg ataacaagca gaaagaacaa gctggagagt taggccagca caacagactg
600
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648

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<210> 5818

<211> 191

<212> PRT

<213> Homo sapiens

<400> 5818

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Ser Arg Gln Cys Ser Trp Asp Lys Ser Glu Ser Pro Gln Arg Ser Ser
             20             25             30
Met Asn Asn Gly Ser Pro Thr Ala Leu Ser Gly Ser Lys Thr Asn Ser
             35             40             45
Pro Lys Asn Ser Val His Lys Leu Asp Val Ser Arg Ser Pro Pro Leu
             50             55             60
Met Val Lys Lys Asn Pro Ala Phe Asn Lys Gly Ser Gly Ile Val Thr
65             70             75             80
Asn Gly Ser Phe Ser Ser Ser Asn Ala Glu Gly Leu Glu Lys Thr Gln
             85             90             95
Thr Thr Pro Asn Gly Ser Leu Gln Ala Arg Arg Ser Ser Ser Leu Lys
             100            105            110
Val Ser Gly Thr Lys Met Gly Thr His Ser Val Gln Asn Gly Thr Val
             115            120            125
Arg Met Gly Ile Leu Asn Ser Asp Thr Leu Gly Asn Pro Thr Asn Val
             130            135            140
Arg Asn Met Ser Trp Leu Pro Asn Gly Tyr Val Thr Leu Arg Asp Asn
145            150            155            160
Lys Gln Lys Glu Gln Ala Gly Glu Leu Gly Gln His Asn Arg Leu Ser
             165            170            175
Pro Met Ile Met Ser Ile Thr Val Leu His Asp Glu Leu Asp Asp
             180            185            190

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<210> 5819

<211> 1652

<212> DNA

<213> Homo sapiens

<400> 5819

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cgctctgcct tgcagctctt ctggaccgag gagcccaaag ccctaccctc accattcacc
180
aggtcctgtg ggaagagcag cgtggaggtg ggctgaggtt agaaggtgca gagcgtggaa
240
gaagattgtg agctgagtat tggacatctg ttcttgaata gtccctgggc ctgccatagg
300
aaaggaagtt ctccagggtt acagttctta tccgcgtgaa tacacatggc tctgttacga
360
aaaattaatc aggtgctgct gttccttctg atcgtgaccc tctgtgtgat tctgtataag
420
aaagttcata aggggactgt gccaagaat gacgcagatg atgaatccga gactcctgaa
480
gaactggaag aagagattcc tgtggtgatt tgtgctgcag caggaggat gggtgccact
540
atggctgcca tcaatagcat ctacagcaac cctgacgcca acatcttggt ctatgtagtg
600

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ggactccgga atactctgac tcgaatacga aaatggattg aacattccaa actgagagaa
 660
 ataaacttta aaatcgtgga attcaacccg atggctctca aagggaagat cagaccagac
 720
 tcatcgaggc ctgaattgct ccagcctctg aactttgttc gattttatct ccctctactt
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 960
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 1020
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 1140
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 1200
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 1620
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 1652

<210> 5820

<211> 274

<212> PRT

<213> Homo sapiens

<400> 5820

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 20 25 30
 Pro Lys Asn Asp Ala Asp Asp Glu Ser Glu Thr Pro Glu Glu Leu Glu
 35 40 45
 Glu Glu Ile Pro Val Val Ile Cys Ala Ala Ala Gly Arg Met Gly Ala
 50 55 60
 Thr Met Ala Ala Ile Asn Ser Ile Tyr Ser Asn Pro Asp Ala Asn Ile
 65 70 75 80
 Leu Phe Tyr Val Val Gly Leu Arg Asn Thr Leu Thr Arg Ile Arg Lys

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<210> 5821
<211> 3292
<212> DNA
<213> Homo sapiens
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4983

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<210> 5822

<211> 712

<212> PRT

<213> Homo sapiens

<400> 5822

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			20					25				30			
His	Lys	Glu	Arg	Cys	Ile	Ala	Ala	Ser	Leu	Glu	Leu	Asn	Asn	Pro	Val
			35					40				45			
Pro	Glu	Gln	Pro	Pro	Leu	Pro	Thr	Ser	Glu	Ser	Pro	Phe	Ala	Trp	Ser
			50					55			60				
Pro	Leu	Ala	Gly	Glu	Lys	Phe	Val	Glu	Val	Tyr	Lys	Glu	Ala	His	Leu
65					70					75				80	
Leu	Ala	Leu	His	Ile	Glu	Ser	Ser	Ser	Arg	Asn	Gln	Ala	Ala	Gln	Ala
			85						90					95	
Ala	Lys	Pro	Glu	Asp	Pro	Arg	Ser	Gln	Gly	Val	Glu	Arg	Phe	Ile	Gln

			100					105					110			
Glu	Ser	Lys	Leu	Lys	Ile	Asn	Leu	Phe	Glu	Lys	Glu	Lys	Glu	Met	Lys	
		115					120					125				
Lys	Ser	Pro	Thr	Ser	Leu	Lys	Arg	Glu	Thr	Tyr	Tyr	Leu	Ser	Asp	Ser	
		130				135					140					
Pro	Leu	Leu	Gly	Pro	Pro	Val	Gly	Glu	Pro	Arg	Leu	Leu	Ala	Ser	Ser	
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Pro	Ala	Leu	Pro	Ser	Ser	Gly	Ala	Gln	Ala	Arg	Leu	Thr	Arg	Ala	Pro	
				165				170						175		
Gly	Pro	Pro	His	Ser	Ala	His	Ala	Leu	Pro	Arg	Glu	Ser	Cys	Thr	Ala	
			180				185						190			
His	Ala	Ala	Ser	Gln	Ala	Ala	Thr	Gln	Arg	Lys	Pro	Gly	Thr	Lys	Leu	
		195				200					205					
Leu	Leu	Pro	Arg	Ala	Ala	Ser	Val	Arg	Gly	Arg	Ser	Ile	Pro	Gly	Ala	
		210				215					220					
Ala	Glu	Lys	Pro	Lys	Lys	Glu	Ile	Pro	Ala	Ser	Pro	Ser	Arg	Thr	Lys	
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				245				250						255		
Ala	Pro	Gly	Ala	Val	Asn	Val	Pro	Ala	Ala	Gly	Ser	His	Leu	Gly	Gln	
			260				265						270			
Gly	Lys	Arg	Ala	Ile	Pro	Val	Pro	Asn	Lys	Leu	Gly	Leu	Lys	Lys	Thr	
		275				280						285				
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		290				295					300					
Ser	Gly	Pro	Val	Trp	Ser	Gly	Ala	Ser	Ser	Ala	Cys	Thr	Ser	Pro	Ala	
305					310					315					320	
Val	Gly	Lys	Ala	Lys	Ser	Ser	Glu	Phe	Ala	Ser	Ile	Pro	Ala	Asn	Ser	
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			340				345						350			
Met	Leu	Arg	Pro	Ala	Leu	Pro	Ala	Gly	Pro	Val	Gly	Ala	Ser	Ser	Trp	
		355				360						365				
Gln	Ala	Lys	Arg	Val	Asp	Val	Ser	Glu	Leu	Ala	Ala	Glu	Gln	Leu	Thr	
		370				375					380					
Ala	Pro	Pro	Ser	Ala	Ser	Pro	Thr	Gln	Pro	Gln	Thr	Pro	Glu	Gly	Gly	
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Gly	Gln	Trp	Leu	Asn	Ser	Ser	Cys	Ala	Trp	Ser	Glu	Ser	Ser	Gln	Leu	
				405				410						415		
Asn	Lys	Thr	Arg	Ser	Ile	Arg	Arg	Arg	Asp	Ser	Cys	Leu	Asn	Ser	Lys	
			420					425					430			
Thr	Lys	Val	Met	Pro	Thr	Pro	Thr	Asn	Gln	Phe	Lys	Ile	Pro	Lys	Phe	
		435				440						445				
Ser	Ile	Gly	Asp	Ser	Pro	Asp	Ser	Ser	Thr	Pro	Lys	Leu	Ser	Arg	Ala	
		450				455			</							

530	535	540
Ser Ala Met Arg Thr Glu Pro Thr Arg Glu Ser Asn Arg Lys Thr Asp		
545	550	555
Ser Arg Leu Val Asp Val Ser Pro Asp Arg Gly Ser Pro Pro Ser Arg		
	565	570
Val Pro Gln Ala Leu Asn Phe Ser Pro Glu Glu Ser Asp Ser Thr Phe		
	580	585
Ser Lys Ser Thr Ala Thr Glu Val Ala Arg Glu Glu Ala Lys Pro Gly		
	595	600
Gly Asp Ala Ala Pro Ser Glu Ala Leu Leu Val Asp Ile Lys Leu Glu		
	610	615
Pro Leu Ala Val Thr Pro Asp Ala Ala Ser Gln Pro Leu Ile Asp Leu		
	625	630
Pro Leu Ile Asp Phe Cys Asp Thr Pro Glu Ala His Val Ala Val Gly		
	645	650
Ser Glu Ser Arg Pro Leu Ile Asp Leu Met Thr Asn Thr Pro Asp Met		
	660	665
Asn Lys Asn Val Ala Lys Pro Ser Pro Val Val Gly Gln Leu Ile Asp		
	675	680
Leu Ser Ser Pro Leu Ile Gln Leu Ser Pro Glu Ala Asp Lys Glu Asn		
	690	695
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<210> 5823

<211> 2585

<212> DNA

<213> Homo sapiens

<400> 5823

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720

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4997


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Ser Gln Ala Glu Leu Asp Phe Leu Ser His Asn Leu Gln Lys Phe Ser
865              870              875              880
Arg Ala Gln Glu Gln His Trp Trp Ile Gly Leu His Thr Ser Glu Ser
              885              890              895
Asp Gly Arg Phe Arg Trp Thr Asp Gly Ser Ile Ile Asn Phe Ile Ser
              900              905              910
Trp Ala Pro Gly Lys Pro Arg Pro Val Gly Lys Asp Lys Lys Cys Val
              915              920              925
Tyr Met Thr Ala Ser Arg Glu Asp Trp Gly Asp Gln Arg Cys Leu Thr
              930              935              940
Ala Leu Pro Tyr Ile Cys Lys Arg Ser Asn Val Thr Lys Glu Thr Gln
945              950              955              960
Pro Pro Asp Leu Pro Thr Thr Ala Leu Gly Gly Cys Pro Ser Asp Trp
              965              970              975
Ile Gln Phe Leu Asn Lys Cys Phe Gln Val Gln Gly Gln Glu Pro Gln
              980              985              990
Ser Arg Val Lys Trp Ser Glu Ala Gln Phe Ser Cys Glu Gln Gln Glu
              995              1000              1005
Ala Gln Leu Val Thr Ile Thr Asn Pro Leu Glu Gln Ala Phe Ile Thr
              1010              1015              1020
Ala Ser Leu Pro Asn Val Thr Phe Asp Leu Trp Ile Gly Leu His Ala
1025              1030              1035              1040
Ser Gln Arg Asp Phe Gln Trp Val Glu Gln Glu Pro Leu Met Tyr Ala
              1045              1050              1055
Asn Trp Ala Pro Gly Glu Pro Ser Gly Pro Ser Pro Ala Pro Ser Gly
              1060              1065              1070
Asn Lys Pro Thr Ser Cys Ala Val Val Leu His Ser Pro Ser Ala His
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Phe Thr Gly Arg Trp Asp Asp Arg Ser Cys Thr Glu Glu Thr His Gly
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Cys Glu Ser His Asn Ala Ser Leu Ala Tyr Val Pro Asp Pro Tyr Thr
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Gln Ala Phe Leu Thr Gln Ala Ala Arg Gly Leu Arg Thr Pro Leu Trp
              1170              1175              1180
Ile Gly Leu Ala Gly Glu Glu Gly Ser Arg Arg Tyr Ser Trp Val Ser
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Glu Glu Pro Leu Asn Tyr Val Gly Trp Gln Asp Gly Glu Pro Gln Gln
              1205              1210              1215
Pro Gly Gly Cys Thr Tyr Val Asp Val Asp Gly Ala Trp Arg Thr Thr

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 1425 1430 1435 1440
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<210> 5831

<211> 2216

<212> DNA

<213> Homo sapiens

<400> 5831

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<211> 322

<212> PRT

<213> Homo sapiens

<400> 5832

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His	Lys	Glu	Phe	Gln	Gln	Asn	Asn	Trp	His	Ala	Val	Gly	Cys	Gly	Phe
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Arg	Arg	Ala	Arg	Pro	Lys	Phe	Glu	Gln	Val	Asn	Leu	Leu	Asp	Ser	Asn
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Ala	Val	His	His	Ile	Ile	His	Asp	Phe	Gln	Pro	His	Val	Ile	Val	His
65				70					75					80	
Cys	Ala	Ala	Glu	Arg	Arg	Pro	Asp	Val	Val	Glu	Asn	Gln	Pro	Asp	Ala
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Asp	Gly	Thr	Asn	Pro	Pro	Tyr	Arg	Glu	Glu	Asp	Ile	Pro	Ala	Pro	Leu
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Asn	Asn	Leu	Gly	Ala	Ala	Val	Leu	Arg	Ile	Pro	Ile	Leu	Tyr	Gly	Glu
			165					170					175		
Val	Glu	Lys	Leu	Glu	Glu	Ser	Ala	Val	Thr	Val	Met	Phe	Asp	Lys	Val
			180					185					190		
Gln	Phe	Ser	Asn	Lys	Ser	Ala	Asn	Met	Asp	His	Trp	Gln	Gln	Arg	Phe
		195				200						205			
Pro	Thr	His	Val	Lys	Asp	Val	Ala	Thr	Val	Cys	Arg	Gln	Leu	Ala	Glu
		210				215					220				
Lys	Arg	Met	Leu	Asp	Pro	Ser	Ile	Lys	Gly	Thr	Phe	His	Trp	Ser	Gly
225				230					235					240	
Asn	Glu	Gln	Met	Thr	Lys	Tyr	Glu	Met	Ala	Cys	Ala	Ile	Ala	Asp	Ala
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Phe	Asn	Leu	Pro	Ser	Ser	His	Leu	Arg	Pro	Ile	Thr	Asp	Ser	Pro	Val
		260						265					270		
Leu	Gly	Ala	Gln	Arg	Pro	Arg	Asn	Ala	Gln	Leu	Asp	Cys	Ser	Lys	Leu
		275					280					285			
Glu	Thr	Leu	Gly	Ile	Gly	Gln	Arg	Thr	Pro	Phe	Arg	Ile	Gly	Ile	Lys
		290				295					300				
Glu	Ser	Leu	Trp	Pro	Phe	Leu	Ile	Asp	Lys	Arg	Trp	Arg	Gln	Thr	Val
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Phe	His														

<210> 5833
 <211> 805
 <212> DNA
 <213> Homo sapiens

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<210> 5834
 <211> 268
 <212> PRT
 <213> Homo sapiens

<400> 5834
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 Glu Gln Gln Val Glu Ser Met Thr Pro Lys Pro Val Leu Gln Glu Glu
 35 40 45
 Asn Asn Gln Glu Ser Phe Ile Ala Phe Ala Arg Val Phe Ser Gly Val
 50 55 60
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<212> DNA
<213> Homo sapiens
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<211> 140
<212> PRT
<213> Homo sapiens
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5003

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<400> 5838
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Leu Ala Gln Lys Thr Asn Lys Ala Trp Ala Lys Gly Asp Ile Gln Gly

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1200

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<210> 5840
 <211> 138
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Pro Arg Gly Ser Gly Phe Pro Ala Gln Gly Ile Phe Asp Pro Cys Gln
 50 55 60
 Arg Arg Glu Arg Glu Leu Ser Trp Phe Pro Phe His Leu Phe Ser Gly
 65 70 75 80
 Cys Phe Lys Ala Asn Ile Pro Val Pro Asn Val Leu Cys Gly Leu Asn
 85 90 95
 Pro Gly Arg Gly Gln Gly His Ile Gln Val Gly Leu Ala Ser Ser Thr
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 Ser Arg Phe Pro Lys Glu Ser Pro Arg Ser
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 <211> 3411
 <212> DNA
 <213> Homo sapiens

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<211> 6446

<212> DNA

<213> Homo sapiens

<400> 5843

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<213> Homo sapiens

<400> 5844

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<210> 5846

<211> 257

<212> PRT

<213> Homo sapiens

<400> 5846

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Ser	Ala	Ile	Glu	Ala	Met	Lys	Lys	Ala	Tyr	Gln	Glu	Glu	Leu	Ser	Arg
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Leu	Leu	Arg	Val	Lys	Glu	Asn	Glu	Leu	Gln	Tyr	Leu	Lys	Lys	Glu	Val
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Gln	Cys	Leu	Arg	Asp	Glu	Leu	Gln	Met	Met	Gln	Lys	Asp	Lys	Arg	Phe
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Thr	Ser	Gly	Lys	Tyr	Gln	Asp	Val	Tyr	Val	Glu	Leu	Ser	His	Ile	Lys

210	215	220
Thr Arg Ser Glu Arg Glu Ile Glu Gln Leu Lys Glu His Leu Arg Leu		
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<210> 5847

<211> 1021

<212> DNA

<213> Homo sapiens

<400> 5847

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<210> 5848

<211> 120

<212> PRT

<213> Homo sapiens

<400> 5848

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 35 40 45
 Gly Ser Ile Arg Gly Ala Ala Pro Val Ala Val Glu Pro Gly Ala Ala
 50 55 60
 Val Arg Ser Leu Leu Ser Pro Gly Leu Leu Pro His Leu Leu Pro Ala
 65 70 75 80
 Leu Gly Phe Lys Asn Lys Thr Val Leu Lys Lys Arg Cys Lys Asp Cys
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<210> 5849

<211> 3174

<212> DNA

<213> Homo sapiens

<400> 5849

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<210> 5850

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5850

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		20						25					30		
Cys	Thr	Gln	Thr	Gly	His	Ala	Gln	Pro	Cys	Pro	Ser	Ala	Pro	Ser	Thr
		35					40					45			
Gly	Pro	Ile	His	Ile	Ala	Glu	Gly	Gly	Arg	Gly	Arg	Pro	Pro	Pro	Gly
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Ser	Ala	Ser	Asn	Pro	Gln	Pro	Pro	Gly	Ser	Pro	His	Cys	Pro	Ser	Ala
65				70				75						80	
Gly	Leu	Ser	Pro	Val	Pro	Gly	Val	Gly	Gly	Arg	Gln	Cys	Pro	Gly	Thr
			85					90						95	
Val	Pro	Arg	Val	Arg	Arg	Pro	Gly	Leu	Ala	Gly	His	Pro	Val	Thr	His
			100				105						110		
Arg	Ile	Asn	Arg	Lys	Thr	Ala	Ser	Pro	Pro	Asn	Leu	Cys	Pro	Arg	His
		115				120					125				
Asn	Met	Ser	Arg	Ser	Glu	Ser	Cys	Thr	Pro	Arg	Ser	Arg	Ala	Pro	Leu
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<210> 5851

<211> 488

<212> DNA

<213> Homo sapiens

<400> 5851

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<210> 5852

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5852

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20          25          30
Leu Thr Lys Gly Thr Ser Ala Ala His Leu Asn Ser Met Glu Val Thr
35          40          45
Thr Glu Asp Thr Ser Arg Thr Asp Ala Tyr Glu Ser Tyr Lys Lys Lys
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Asp Tyr Thr Gln Val Asp Tyr Leu Ile Asn Gly Met Tyr Ala Asp Ser
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<210> 5853

<211> 487

<212> DNA

<213> Homo sapiens

<400> 5853

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180

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<210> 5854

<211> 68

<212> PRT

<213> Homo sapiens

<400> 5854

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Tyr	Arg	Arg	Ser	Gln	Glu	Gly	Gly	Pro	Ala	Arg	Pro	Ala	Ala	Pro	Asp
			20					25					30		
Thr	Pro	Ser	Gly	Arg	Ser	Gly	Pro	Ala	Ala	Pro	Trp	Arg	Thr	Pro	Ala
			35				40					45			
Arg	Thr	Pro	Pro	Arg	Leu	Leu	Pro	Thr	Leu	Cys	Pro	Val	Thr	Pro	Val
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<210> 5855

<211> 362

<212> DNA

<213> Homo sapiens

<400> 5855

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<210> 5856

<211> 113

<212> PRT

<213> Homo sapiens

<400> 5856

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      20           25           30
Ser Pro Pro Asp Pro Pro Ala Gly Thr Cys Trp Gly Leu Trp Gly Pro
      35           40           45
Lys Arg Glu Gly Val Asn Glu Val Val Ala Glu Val Leu Leu Ala Ala
      50           55           60
His Glu Gly Val Gly Asp Gln Gly Glu Ala Gly Ala His Pro Val Leu
      65           70           75           80
Ser Asp Ala Gly Leu Leu Val Leu Gly Leu Arg Ala Ala Leu Gly Glu
      85           90           95
His Gln Ala His Leu Gly Ser Ala Leu Asn Glu His Gln Arg Val Leu
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<210> 5857

<211> 1751

<212> DNA

<213> Homo sapiens

<400> 5857

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<210> 5858

<211> 434

<212> PRT

<213> Homo sapiens

<400> 5858

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Gly	Arg	Pro	Ser	Arg	Gly	Arg	Pro	Pro	Lys	Leu	Gln	Arg	Asn	Ser	Arg
		20						25					30		
Gly	Gly	Gln	Gly	Arg	Gly	Gly	Glu	Lys	Pro	Pro	His	Leu	Ala	Ala	Leu
		35					40					45			
Ile	Leu	Ala	Arg	Gly	Gly	Ser	Lys	Gly	Ile	Pro	Leu	Lys	Asn	Ile	Lys
	50					55				60					
His	Leu	Ala	Gly	Val	Pro	Leu	Ile	Gly	Trp	Val	Leu	Arg	Ala	Ala	Leu
65					70				75					80	
Asp	Ser	Gly	Ala	Phe	Gln	Ser	Val	Trp	Val	Ser	Thr	Asp	His	Asp	Glu
			85					90						95	
Ile	Glu	Asn	Val	Ala	Lys	Gln	Phe	Gly	Ala	Gln	Val	His	Arg	Arg	Ser
			100					105					110		
Ser	Glu	Val	Ser	Lys	Asp	Ser	Ser	Thr	Ser	Leu	Asp	Ala	Ile	Ile	Glu

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Thr Ser Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met
145              150              155              160
Ile Arg Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His
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Gln Phe Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu
      180              185              190
Pro Leu Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp
      195              200              205
Gly Glu Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu
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225              230              235              240
Arg Ala Glu His Ser Val Asp Ile Asp Val Asp Ile Asp Trp Pro Ile
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Ala Glu Gln Arg Val Leu Arg Tyr Gly Tyr Phe Gly Lys Glu Lys Leu
      260              265              270
Lys Glu Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn
      275              280              285
Gly His Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp
      290              295              300
Val Lys Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu
305              310              315              320
Val Arg Leu Ile Ser Glu Arg Ala Cys Ser Lys Gln Thr Leu Ser Ser
      325              330              335
Leu Lys Leu Asp Cys Lys Met Glu Val Ser Val Ser Asp Lys Leu Ala
      340              345              350
Val Val Asp Glu Trp Arg Lys Glu Met Gly Leu Cys Trp Lys Glu Val
      355              360              365
Ala Tyr Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val
      370              375              380
Gly Leu Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala
385              390              395              400
Val Gly Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu
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Phe Ala Glu His Ile Cys Leu Leu Met Glu Lys Val Asn Asn Ser Cys
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Gln Lys

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<210> 5859

<211> 2267

<212> DNA

<213> Homo sapiens

<400> 5859

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<210> 5860

<211> 96

<212> PRT

<213> Homo sapiens

<400> 5860

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Pro	Ala	Ala	Ala	Arg	Gln	Ser	Pro	Ala	Arg	Leu	His	Pro	Lys	Ser	Arg
			20					25					30		
Ser	Arg	Ala	Ser	Glu	Ala	Ser	Gly	Ser	Leu	Leu	Leu	Arg	Phe	Phe	Leu
		35					40					45			
Gln	Met	Gly	Leu	Gly	Arg	Cys	Arg	Phe	Cys	Phe	Ser	Pro	Trp	Leu	Pro
		50				55					60				
Val	Arg	Pro	Gln	Pro	Ser	Gly	Cys	Asp	Ile	Ile	Glu	Ser	Ala	Val	Ser
65					70				75					80	
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<210> 5861

<211> 1951

<212> DNA

<213> Homo sapiens

<400> 5861

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720
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1951

<210> 5862
 <211> 514
 <212> PRT
 <213> Homo sapiens

<400> 5862
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 35 40 45
 Thr Leu Gln Gln Arg Val Phe Gln Ile Leu Asp Ser Lys Leu Phe Glu
 50 55 60
 Lys Val Lys Glu Val Cys Pro Asn Val His Glu Lys Ile Arg Ala Ile
 65 70 75 80
 Tyr Ala Asp Leu Asn Gln Asn Asp Phe Ala Ile Ser Lys Glu Asp Met
 85 90 95
 Gln Glu Leu Leu Ser Cys Thr Asn Ile Ile Phe His Cys Ala Ala Thr
 100 105 110
 Val Arg Phe Asp Asp Thr Leu Arg His Ala Val Gln Leu Asn Val Thr
 115 120 125
 Ala Thr Arg Gln Leu Leu Leu Met Ala Ser Gln Met Pro Lys Leu Glu
 130 135 140
 Ala Phe Ile His Ile Ser Thr Ala Tyr Ser Asn Cys Asn Leu Lys His
 145 150 155 160
 Ile Asp Glu Val Ile Tyr Pro Cys Pro Val Glu Pro Lys Lys Lys Ile
 165 170 175
 Ile Asp Ser Leu Glu Trp Leu Asp Asp Ala Ile Ile Asp Glu Ile Thr
 180 185 190
 Pro Lys Leu Ile Arg Asp Trp Pro Asn Ile Tyr Thr Tyr Thr Lys Ala
 195 200 205
 Leu Gly Glu Met Val Val Gln Gln Glu Ser Arg Asn Leu Asn Ile Ala
 210 215 220
 Ile Ile Arg Pro Ser Ile Val Gly Ala Thr Trp Gln Glu Pro Phe Pro
 225 230 235 240
 Gly Trp Val Asp Asn Ile Asn Gly Pro Asn Gly Ile Ile Ile Ala Thr
 245 250 255
 Gly Lys Gly Phe Leu Arg Ala Ile Lys Ala Thr Pro Met Ala Val Ala
 260 265 270
 Asp Val Ile Pro Val Asp Thr Val Val Asn Leu Met Leu Ala Val Gly
 275 280 285
 Trp Tyr Thr Ala Val His Arg Pro Lys Ser Thr Leu Val Tyr His Ile
 290 295 300
 Thr Ser Gly Asn Met Asn Pro Cys Asn Trp His Lys Met Gly Val Gln
 305 310 315 320
 Val Leu Ala Thr Phe Glu Lys Ile Pro Phe Glu Arg Pro Phe Arg Arg
 325 330 335
 Pro Asn Ala Asn Phe Thr Ser Asn Ser Phe Thr Ser Gln Tyr Trp Asn
 340 345 350
 Ala Val Ser His Arg Ala Pro Ala Ile Ile Tyr Asp Cys Tyr Leu Arg
 355 360 365
 Leu Thr Gly Arg Lys Pro Arg Met Thr Lys Leu Met Asn Arg Leu Leu

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      370              375              380
Arg Thr Val Ser Met Leu Glu Tyr Phe Ile Asn Arg Ser Trp Glu Trp
385              390              395              400
Ser Thr Tyr Asn Thr Glu Met Leu Met Ser Glu Leu Ser Pro Glu Asp
      405              410              415
Gln Arg Val Phe Asn Phe Asp Val Arg Gln Leu Asn Trp Leu Glu Tyr
      420              425              430
Ile Glu Asn Tyr Val Leu Gly Val Lys Lys Tyr Leu Leu Lys Glu Asp
      435              440              445
Met Ala Gly Ile Pro Lys Ala Lys Gln Arg Leu Lys Arg Leu Arg Asn
      450              455              460
Ile His Tyr Leu Phe Asn Thr Ala Leu Phe Leu Ile Ala Trp Arg Leu
465              470              475              480
Leu Ile Ala Arg Ser Gln Met Ala Arg Asn Val Trp Phe Phe Ile Val
      485              490              495
Ser Phe Cys Tyr Lys Phe Leu Ser Tyr Phe Arg Ala Ser Ser Thr Leu
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Lys Val

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<210> 5863
 <211> 438
 <212> DNA
 <213> Homo sapiens

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420
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438

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<210> 5864
 <211> 104
 <212> PRT
 <213> Homo sapiens

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<400> 5864
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Asp Cys Ser Leu Pro Val Gly Gln Thr His Ser Asn Thr Lys Leu Phe
20      25      30
Cys Gln Tyr Leu Ser Tyr Val Pro Phe Met Ala Glu Tyr Gln Ser Lys

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 1229

<210> 5866
 <211> 212
 <212> PRT
 <213> Homo sapiens

<400> 5866
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 20 25 30
 Arg Ala Gly Arg Thr Ala Arg Ala Asn Asn Pro Gly Ile Val Leu Thr
 35 40 45
 Phe Val Leu Pro Thr Glu Gln Phe His Leu Gly Lys Ile Glu Glu Leu
 50 55 60
 Leu Val Glu Arg Thr Gly Ala Pro Phe Cys Ser Pro Thr Ser Ser Gly
 65 70 75 80
 Trp Arg Arg Ser Arg Ala Ser Ala Ile Ala Ala Gly Val His Pro Gln
 85 90 95
 Asp Ala Met Arg Ser Val Thr Lys Gln Ala Ile Arg Glu Ala Arg Leu
 100 105 110
 Lys Glu Ile Lys Glu Glu Leu Leu His Ser Glu Lys Leu Lys Thr Tyr
 115 120 125
 Phe Glu Asp Asn Pro Arg Asp Leu Gln Leu Leu Arg His Asp Leu Pro
 130 135 140
 Leu His Pro Ala Val Val Lys Pro His Leu Gly His Val Pro Asp Tyr
 145 150 155 160
 Leu Val Pro Pro Ala Leu Arg Gly Leu Val Arg Pro His Lys Lys Arg
 165 170 175
 Lys Lys Leu Ser Ser Ser Cys Arg Lys Ala Lys Arg Ala Lys Ser Gln
 180 185 190
 Asn Pro Leu Arg Ser Phe Lys His Lys Gly Lys Lys Phe Arg Pro Thr
 195 200 205
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<210> 5867
 <211> 1882
 <212> DNA
 <213> Homo sapiens

<400> 5867
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 180
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 240

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1860

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1882

<210> 5868

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5868

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		20					25					30			
Trp	Ile	Asn	Phe	Lys	Thr	Ser	Glu	Ala	Asn	Ser	Ala	Arg	Gly	Phe	Gln
	35					40					45				
Ile	Pro	Tyr	Val	Thr	Tyr	Asp	Glu	Asp	Tyr	Glu	Gln	Leu	Val	Glu	Asp
	50					55				60					
Ile	Val	Arg	Asp	Gly	Arg	Leu	Tyr	Ala	Ser	Glu	Asn	His	Gln	Glu	Ile
65					70					75				80	
Leu	Lys	Asp	Lys	Lys	Leu	Ile	Lys	Ala	Phe	Phe	Glu	Val	Leu	Ala	His
			85						90					95	
Pro	Gln	Asn	Tyr	Phe	Lys	Tyr	Thr	Glu	Lys	His	Lys	Glu	Met	Leu	Pro
		100						105					110		
Lys	Ser	Phe	Ile	Lys	Leu	Leu	Arg	Ser	Lys	Val	Ser	Ser	Phe	Leu	Arg
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Pro	Tyr	Lys													
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<210> 5869

<211> 910

<212> DNA

<213> Homo sapiens

<400> 5869

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420
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cgtatttggg tctgcggaac accttttttag ttgtgccata gaccagggtt ttccgaacga
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<211> 2217

<212> DNA

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<211> 1648

<212> PRT

<213> Homo sapiens

<400> 5876

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His Glu Thr Arg Gly	Gln Asn Ser Asn Ala	Leu Pro Ser Val Leu Leu
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<212> DNA

<213> Homo sapiens

<400> 5877

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 Tyr Lys Val His Glu Lys Asn Arg Ser Tyr Thr Trp Leu Glu Lys Gln
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 Ala Val Lys Phe Arg Asp Lys Glu Trp Ile Arg Pro Asp Lys Tyr Gly
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 His Phe Ser Gln Glu Phe Trp Asn Phe Cys Glu Val Pro Val Glu Ala
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Ala Pro Ser Leu Asp Asp Pro Ala Arg Arg His Met Thr Ile His Val
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Pro Leu Asp Ala Ser Arg Ser Lys Gln Leu Ile Ser Glu Trp Lys Gln
65           70           75           80
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<400> 5883

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<400> 5884

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<210> 5887

<211> 3779

<212> DNA

<213> Homo sapiens

<400> 5887

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<212> PRT

<213> Homo sapiens

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			20					25					30		
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<213> Homo sapiens

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Ala	Val	Pro	Pro	Gly	Ser	Pro	Gly	Val	Gly	Thr	Gln	Cys	Leu	Gly
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Ala	Leu	Gly	Cys	Pro	Thr	Leu	Gly	Ala	Thr	Ala	Arg	Arg	Gly	Arg
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<210> 5891

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<212> DNA

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<210> 5892

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5892

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Phe	Arg	Asn	Gly	Ala	Val	Tyr	Gly	Ala	Lys	Ile	Arg	Ala	Pro	His	Ala
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Phe	Val	Phe	Thr	Tyr	Lys	Gly	Leu	Arg	Ala	Leu	Gln	Ser	Tyr	Ile	Gln
			85					90					95		
Gly	Lys	Thr	Tyr	Pro	Ala	His	Ala	Phe	Leu	Ala	Ala	Phe	Leu	Gly	Gly
		100					105					110			
Ile	Leu	Val	Phe	Gly	Glu	Asn	Asn	Asn	Ile	Asn	Ser	Gln	Ile	Asn	Met
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Tyr	Leu	Leu	Ser	Arg	Val	Leu	Phe	Ala	Leu	Ser	Arg	Leu	Ala	Val	Glu
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Lys	Gly	Tyr	Ile	Pro	Glu	Pro	Arg	Trp	Asp	Pro	Phe	Pro	Leu	Leu	Thr
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Ala	Val	Val	Trp	Gly	Leu	Val	Leu	Trp	Leu	Phe	Glu	Tyr	His	Arg	Ser
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Thr	Leu	Gln	Pro	Ser	Leu	Gln	Ser	Ser	Met	Thr	Tyr	Leu	Tyr	Glu	Asp
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Ser	Asn	Val	Trp	His	Asp	Ile	Ser	Asp	Phe	Leu	Val	Tyr	Asn	Lys	Ser
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<210> 5893

<211> 1389

<212> DNA

<213> Homo sapiens

<400> 5893

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<210> 5894

<211> 260

<212> PRT

<213> Homo sapiens

<400> 5894

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      65           70           75           80
Cys Leu Tyr Thr Cys Gln Ile Lys Asp Gly Gly Val Gln Pro Gln Phe
      85           90           95
Glu Ile Val Pro Glu Asp Asp Pro Gln Asn Ala Ile Val Ser Ser Ser
      100          105          110
Ala Asp Ala Cys His Ala Glu Leu Arg Thr Ile Ser Thr Thr Met
      115          120          125
Gly Lys Leu Met Pro Asn Leu Leu Pro Ala Gly Ala Asp Phe Phe Gly
      130          135          140
Phe Ser His Pro Ala Ile His Asn Leu Ile Gln Ser Cys Pro Gly Ala
      145          150          155          160
Arg Lys Cys Ile Asn Tyr Gln Trp Val Lys Phe Asp Val Cys Lys Pro
      165          170          175
Gly Asp Gly Gln Leu Pro Glu Gly Leu Pro Glu Asn Asp Ala Ala Met
      180          185          190
Ser Phe Glu Ala Phe Gln Arg Gln Ile Phe Asp Glu Asp Gln Asn Asp
      195          200          205
Pro Leu Leu Pro Gly Ser Leu Asp Leu Pro Glu Leu Gln Pro Ala Ala
      210          215          220
Phe Val Ser Ser Tyr Gln Pro Met Tyr Leu Thr His Glu Pro Leu Val
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<210> 5895

<211> 2748

<212> DNA

<213> Homo sapiens

<400> 5895

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<210> 5896

<211> 261

<212> PRT

<213> Homo sapiens

<400> 5896

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			20					25					30		
Arg	Asp	Leu	Gly	Gly	Ser	Ser	Ala	Ala	Thr	Glu	Ala	Val	Ala	Ile	Leu
		35					40					45			
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		50				55					60				
Ile	Arg	Ala	Val	Tyr	Pro	Ala	Phe	Asp	Lys	Asn	Asn	Pro	Ser	Asn	Lys
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				85					90					95	
Thr	Phe	Val	Cys	Met	Ala	Leu	Ser	Leu	Thr	Leu	Cys	Phe	Val	Met	Phe
			100					105					110		
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		130				135					140				
Phe	Phe	Pro	Val	Pro	Val	Thr	Val	Arg	Ala	His	Leu	Thr	Gly	Trp	Leu
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<210> 5898

<211> 242

<212> PRT

<213> Homo sapiens

<400> 5898

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	50				55					60					
Thr	Asn	Asn	Asp	Pro	Gly	Leu	Phe	Val	Tyr	Cys	Cys	Asp	Phe	Ser	Ser
65				70					75					80	
Thr	Ala	Ile	Glu	Leu	Val	Gln	Thr	Asn	Ser	Glu	Tyr	Asp	Pro	Ser	Arg
			85					90					95		
Cys	Phe	Ala	Phe	Val	His	Asp	Leu	Cys	Asp	Glu	Glu	Lys	Ser	Tyr	Pro
	100						105					110			
Val	Pro	Lys	Gly	Ser	Leu	Asp	Ile	Ile	Ile	Leu	Ile	Phe	Val	Leu	Ser
	115					120				125					
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Asp Met Ala Gln Leu	Arg Phe Lys Lys Gly Gln Cys	Leu Ser Gly Asn		
165	170	175		
Phe Tyr Val Arg Gly	Asp Gly Thr Arg Val Tyr Phe	Phe Thr Gln Glu		
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195	200	205		
Leu Val Asp Arg Arg	Leu Gln Val Asn Arg Gly	Lys Gln Leu Thr Met		
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<210> 5899

<211> 1589

<212> DNA

<213> Homo sapiens

<400> 5899

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<211> 345

<212> PRT

<213> Homo sapiens

<400> 5900

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<211> 984

<212> DNA

<213> Homo sapiens

<400> 5901

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<212> PRT

<213> Homo sapiens

<400> 5902

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<212> DNA

<213> Homo sapiens

<400> 5903

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<212> PRT

<213> Homo sapiens

<400> 5904

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<212> DNA

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<212> PRT

<213> Homo sapiens

<400> 5906

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<213> Homo sapiens

<400> 5908

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Thr Leu Val Ser Pro Ser Leu Ile Leu Tyr Leu Asn Asp Thr Ser Ala
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Gly Ser Phe Gly Ala Val Tyr Phe Ala Thr Asn Ala His Thr Ser Glu
      35           40           45
Val Val Ala Ile Lys Lys Met Ser Tyr Ser Gly Lys Gln Thr His Glu
      50           55           60
Lys Trp Gln Asp Ile Leu Lys Glu Val Lys Phe Leu Arg Gln Leu Lys
      65           70           75           80
His Pro Asn Thr Ile Glu Tyr Lys Gly Cys Tyr Leu Lys Glu His Thr
      85           90           95
Ala Trp Leu Val Met Glu Tyr Cys Leu Gly Ser Ala Ser Asp Leu Leu
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Glu Val His Lys Lys Pro Leu Gln Glu Val Glu Ile Ala Ala Ile Thr
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His Gly Ala Leu His Gly Leu Ala Tyr Leu His Ser His Ala Leu Ile
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Val Lys Leu Ala Asp Phe Gly Ser Ala Ser Met Ala Ser Pro Ala Asn
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Ser Phe Val Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Ile Leu Ala
      180          185          190
Met Asp Glu Gly Gln Tyr Asp Gly Lys Val Asp Ile Trp Ser Leu Gly
      195          200          205
Ile Thr Cys Ile Glu Leu Ala Glu Arg Lys Pro Pro Leu Phe Asn Met
      210          215          220
Asn Ala Met Ser Ala Leu Tyr His Ile Ala Gln Asn Asp Ser Pro Thr
      225          230          235          240
Leu Gln Ser Asn Glu Trp Thr Asp Ser Phe Arg Arg Phe Val Asp Tyr
      245          250          255
Cys Leu Gln Lys Ile Pro Gln Glu Arg Pro Thr Ser Ala Glu Leu Leu
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Glu His Phe Asn Ile Phe	Leu Thr Ala Lys Asp	Leu Asn Ala Tyr Lys
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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Ser	Ser	Arg	Trp	Glu	Ser	Phe	Trp	Met	Asn	Arg	Glu	Asn	Glu	Asp	Ala
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Pro	Glu	Glu	Glu	Asp	Asp	Ser	Pro	Arg	Asp	Asp	Asn	Leu	Glu	Glu	Arg
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 Pro Cys Cys Ile Ser Tyr Phe Thr Lys Gly Glu Tyr Ile Leu Leu Gly
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 Gly Thr Val Gly Glu Gln Asn Ser Trp Val Trp Thr Cys Gln Ala Lys
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 Pro Asp Ser Asn Tyr Val Val Val Gly Cys Gln Asp Gly Thr Ile Ser
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 Phe Tyr Gln Leu Ile Phe Ser Thr Val His Gly Leu Tyr Lys Asp Arg
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 Tyr Ala Tyr Arg Asp Ser Met Thr Asp Val Ile Val Gln His Leu Ile
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 Thr Glu Gln Lys Val Arg Ile Lys Cys Lys Glu Leu Val Lys Lys Ile
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 Ala Ile Tyr Arg Asn Arg Leu Ala Ile Gln Leu Pro Glu Lys Ile Leu
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 Ile Tyr Glu Leu Tyr Ser Glu Asp Leu Ser Asp Met His Tyr Arg Val
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 Ser Gly Gly Gly Tyr Leu Asn Ile Lys Ala Ser Thr Phe Pro Val His
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5103

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      1140              1145              1150
Tyr Phe Arg Ser Leu Leu Pro Asp Ala Ser Ile Thr Met Cys Pro Ser
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Cys Phe Gln Val Gly Gly His Pro Gly Ser Ser His Val Leu Leu Leu
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Ala Thr Phe Pro Leu Pro Lys Cys Pro Ser Gly Arg Arg Gly Pro Trp
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Glu Gly Gly Ala His Pro Trp Leu Gln Val Gly Thr Glu Ala Cys Leu
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Ser Ser Pro Leu Leu Ala Phe His Val His Leu Lys Trp Thr Ser Leu
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Val Met Cys Pro
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<210> 5923

<211> 1989

<212> DNA

<213> Homo sapiens

<400> 5923

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720

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<211> 146

<212> PRT

<213> Homo sapiens

<400> 5924

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Asn Ile Gln Asn Ile Asp Glu Asp Glu Asp Leu Glu Val Phe Arg Asn
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Ser Leu Tyr Ala Pro Asp Tyr Ser Ser Arg Leu Asp Ile Val Arg Ala
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Asn Ser Lys Ser Pro Leu Gln Arg Ser Leu Ser Ala Lys Cys Val Ser
      100      105      110
Gly Thr Gly Gln Val Ser Thr Cys Arg Leu Arg Lys Asp Gln Gln Ala
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<210> 5925

<211> 4538

<212> DNA

<213> Homo sapiens

<400> 5925

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<210> 5926

<211> 526

<212> PRT

<213> Homo sapiens

<400> 5926

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			20					25					30		
Gln	Pro	Phe	Leu	Pro	Val	Phe	Thr	Met	Pro	Leu	Leu	Ser	Pro	Ser	Pro
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Ala	Pro	Pro	Pro	Ile	Ser	Pro	Val	Leu	Pro	Leu	Val	Pro	Pro	Pro	Ala
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Thr	Ala	Leu	Asn	Pro	Pro	Ala	Pro	Pro	Thr	Phe	His	Gln	Pro	Gln	Lys
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Phe	Ala	Gly	Val	Asn	Lys	Ala	Pro	Ser	Val	Ile	Thr	His	Thr	Ala	Ser
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Ala	Thr	Leu	Thr	His	Asp	Ala	Pro	Ala	Thr	Thr	Phe	Ser	Gln	Ser	Gln
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Gly	Leu	Val	Ile	Thr	Thr	His	His	Pro	Ala	Pro	Ser	Ala	Ala	Pro	Cys
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Val Ala Ala Leu Lys Asn Arg Gln Met Lys His Ile Ser Ala Glu Gln					
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Lys Arg Arg Phe Asn Ile Lys Met Cys Phe Asp Met Leu Asn Ser Leu					
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Ile Ser Asn Asn Ser Lys Leu Thr Ser His Ala Ile Thr Leu Gln Lys					
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Thr Val Glu Tyr Ile Thr Lys Leu Gln Gln Glu Arg Gly Gln Met Gln					
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Glu Glu Ala Arg Arg Leu Arg Glu Glu Ile Glu Glu Leu Asn Ala Thr					
385			390		395
Ile Ile Ser Cys Gln Gln Leu Leu Pro Ala Thr Gly Val Pro Val Thr					
	405			410	415
Arg Arg Gln Phe Asp His Met Lys Asp Met Phe Asp Glu Tyr Val Lys					
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Thr Arg Thr Leu Gln Asn Trp Lys Phe Trp Ile Phe Ser Ile Ile Ile					
	435		440		445
Lys Pro Leu Phe Glu Ser Phe Lys Gly Met Val Ser Thr Ser Ser Leu					
	450		455		460
Glu Glu Leu His Arg Thr Ala Leu Ser Trp Leu Asp Gln His Cys Ser					
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Leu Pro Ile Leu Arg Pro Met Val Leu Ser Thr Leu Arg Gln Leu Ser					
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Thr Ser Thr Ser Ile Leu Thr Asp Pro Ala Gln Leu Pro Glu Gln Ala					
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<210> 5927

<211> 1786

<212> DNA

<213> Homo sapiens

<400> 5927

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<210> 5928

<211> 202

<212> PRT

<213> Homo sapiens

<400> 5928

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Leu Asp Leu Pro Ser Leu Thr Ser Leu Leu Ser Glu Lys Ala Lys Glu			
	35	40	45
Phe Leu Met Glu Asn Arg Val Gln Ser Phe Tyr Gln Gln Glu Leu Glu			
	50	55	60
Met Val Glu Ser Leu Leu Ser Leu Ala Asn Gln Pro Val Ile His Ser			
65	70	75	80
Ala Cys Ser Asp Gln Val Asn Phe Lys Lys Asp Thr Thr Ser Lys Ala			
	85	90	95
Ile His Ser Ile Phe Lys Asn Ala Ile Gln Leu Leu Gln Glu Lys Gly			
	100	105	110
Leu Val Phe Gln Lys Asp Asp Gly Phe Asp Asn Leu Tyr Tyr Val Thr			
	115	120	125
Arg Glu Asp Lys Asp Leu His Arg Lys Ile His Arg Ile Ile Gln Gln			
	130	135	140
Asp Cys Gln Lys Pro Asn His Met Glu Lys Gly Cys His Phe Leu His			
145	150	155	160
Ile Leu Ala Cys Ala Arg Leu Ser Ile Arg Pro Gly Leu Ser Glu Ala			
	165	170	175
Val Leu Gln Gln Val Leu Glu Leu Leu Glu Asp Gln Ser Asp Ile Val			
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<210> 5929

<211> 606

<212> DNA

<213> Homo sapiens

<400> 5929

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 <213> Homo sapiens

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 35 40 45
 Leu Gln Pro Ala Gly Ser Val Ser Ser Thr Pro Leu Ser Thr Pro Cys
 50 55 60
 Ser Ser Val Pro Ser Ser Pro Ser Phe Ser Pro Thr Glu Gln Lys Thr
 65 70 75 80
 His Leu Glu Asp Leu Tyr Trp Met Ala Ser Asn Tyr Gln Gln Met Asn
 85 90 95
 Pro Glu Ala Leu Asn Leu Thr Pro Glu Asp Ala Val Glu Ala Leu Ile
 100 105 110
 Gly Ser His Pro Val Pro Gln Pro Leu Gln Ser Phe Asp Ser Phe Arg
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<210> 5931
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 <212> DNA
 <213> Homo sapiens

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<210> 5932
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 <212> PRT
 <213> Homo sapiens

<400> 5932

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 35 40 45
 Ala Gly Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln
 50 55 60
 Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys
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<210> 5933

<211> 1953

<212> DNA

<213> Homo sapiens

<400> 5933

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<210> 5934

<211> 314

<212> PRT

<213> Homo sapiens

<400> 5934

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		20					25					30			
Ser	Lys	Val	Arg	Glu	Gln	Leu	Glu	Gln	Glu	Leu	Glu	Glu	Leu	Thr	Ala
		35				40					45				
Ser	Leu	Phe	Glu	Glu	Ala	His	Lys	Met	Val	Arg	Glu	Ala	Asn	Met	Lys
		50				55				60					
Gln	Ala	Ala	Ser	Glu	Lys	Gln	Leu	Lys	Glu	Ala	Arg	Gly	Lys	Ile	Asp
65				70				75					80		
Met	Leu	Gln	Ala	Glu	Val	Thr	Ala	Leu	Lys	Thr	Leu	Val	Ile	Thr	Ser
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<210> 5935
<211> 2727
<212> DNA
<213> Homo sapiens
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<210> 5936

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5936

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			20					25					30		
Asp	Gln	Glu	Pro	Pro	Pro	Pro	Tyr	Gln	Glu	Gln	Val	Pro	Val	Pro	Val
		35					40				45				
Tyr	His	Pro	Thr	Pro	Ser	Gln	Thr	Arg	Leu	Ala	Thr	Gln	Leu	Thr	Glu
	50					55					60				
Glu	Glu	Gln	Ile	Arg	Ile	Ala	Gln	Arg	Ile	Gly	Leu	Ile	Gln	His	Leu
65				70						75				80	
Pro	Lys	Gly	Val	Tyr	Asp	Pro	Gly	Arg	Asp	Gly	Ser	Glu	Lys	Lys	Ile
			85						90				95		
Arg	Glu	Cys	Val	Ile	Cys	Met	Met	Asp	Phe	Val	Tyr	Gly	Asp	Pro	Ile
		100						105					110		
Arg	Phe	Leu	Pro	Cys	Met	His	Ile	Tyr	His	Leu	Asp	Cys	Ile	Asp	Asp
	115						120						125		
Trp	Leu	Met	Arg	Ser	Phe	Thr	Cys	Pro	Ser	Cys	Met	Glu	Pro	Val	Asp
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Ala	Ala	Leu	Leu	Ser	Ser	Tyr	Glu	Thr	Asn						
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<210> 5937

<211> 1536

<212> DNA

<213> Homo sapiens

<400> 5937

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<210> 5938

<211> 406

<212> PRT

<213> Homo sapiens

<400> 5938

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Gly Lys Ser Leu Ile Val Pro Phe Lys Gly Ser Arg Val Ile Asp Ser
      35           40           45
Thr Val Leu Pro Gly Ile Leu Ile Glu Met Ser Glu Val Gln Leu Met
      50           55           60
Arg Leu Leu Pro Ile Lys Lys Ser Thr Ala Leu Lys Val Ala Leu Phe
65           70           75           80
Cys Thr Thr Leu Ser Gly Asp Thr Ser Asp Thr Gly Glu Gly Thr Val
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Val Val Ser Tyr Gly Val Ser Leu Glu Asn Ala Val Leu Asp Gln Leu
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Leu Asn Leu Gly Arg Gln Leu Ile Ser Asp His Val Asp Leu Val Leu
      115          120          125
Cys Gln Lys Val Ile His Pro Ser Leu Lys Gln Phe Leu Asn Met His
      130          135          140
Arg Ile Ile Ala Ile Asp Arg Ile Gly Val Thr Leu Met Glu Pro Leu
145          150          155          160
Thr Lys Met Thr Gly Thr Gln Pro Ile Gly Ser Leu Gly Ser Ile Cys
      165          170          175
Pro Asn Ser Tyr Gly Ser Val Lys Asp Val Cys Thr Ala Lys Phe Gly
      180          185          190
Ser Lys His Phe Phe His Leu Ile Pro Asn Glu Ala Thr Ile Cys Ser
      195          200          205
Leu Leu Leu Cys Asn Arg Asn Asp Thr Ala Trp Asp Glu Leu Lys Leu
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Thr Cys Gln Thr Ala Leu His Val Leu Gln Leu Thr Leu Lys Glu Pro
225          230          235          240
Trp Ala Leu Leu Gly Gly Cys Thr Glu Thr His Leu Ala Ala Tyr
      245          250          255
Ile Arg His Lys Thr His Asn Asp Pro Glu Ser Ile Leu Lys Asp Asp
      260          265          270
Glu Cys Thr Gln Thr Glu Leu Gln Leu Ile Ala Glu Ala Phe Cys Ser
      275          280          285
Ala Leu Glu Ser Val Val Gly Ser Leu Glu His Asp Gly Gly Glu Ile
      290          295          300
Leu Thr Asp Met Lys Tyr Gly His Leu Trp Ser Val Gln Ala Asp Ser
305          310          315          320
Pro Cys Val Ala Asn Trp Pro Asp Leu Leu Ser Gln Cys Gly Cys Gly
      325          330          335
Leu Tyr Asn Ser Gln Glu Glu Leu Asn Trp Ser Phe Leu Arg Ser Thr
      340          345          350
Arg Arg Pro Phe Val Pro Gln Ser Cys Leu Pro His Glu Ala Val Gly
      355          360          365
Ser Ala Ser Asn Leu Thr Leu Asp Cys Leu Thr Ala Lys Leu Ser Gly
      370          375          380
Leu Gln Val Ala Val Glu Thr Ala Asn Leu Ile Leu Asp Leu Ser Tyr
385          390          395          400
Val Ile Glu Asp Lys Asn

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405

<210> 5939

<211> 795

<212> DNA

<213> Homo sapiens

<400> 5939

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<210> 5940

<211> 96

<212> PRT

<213> Homo sapiens

<400> 5940

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20          25          30
Ala Ile Phe Lys Glu Asn Lys Arg Pro Ser Lys Glu Met Gln Val Thr
35          40          45
Ile Ser Gln Gln Leu Gly Leu Glu Leu Asn Thr Val Ser Asn Phe Phe
50          55          60
Met Asn Ala Arg Arg Arg Cys Met Asn Arg Trp Ala Glu Glu Pro Ser
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<210> 5941

<211> 2590

<212> DNA

<213> Homo sapiens

<400> 5941

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<211> 89

<212> PRT

<213> Homo sapiens

<400> 5942

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			20					25				30			
Pro	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys

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      35              40              45
Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys Leu Ser Ser Arg Leu
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<212> DNA

<213> Homo sapiens

<400> 5943

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<211> 174

<212> PRT

<213> Homo sapiens

<400> 5944

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      20              25              30
Gly Val Ser Ser Ile Thr Lys Leu Gln Arg Gln Pro Phe Gly Val Glu

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Ser	Cys	Leu	Ser	Leu	Pro	Ser	Ser	Trp	Asp	His	Arg	His	Pro	Pro	Pro	
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Cys	Trp	Asp	Tyr	Arg	Arg	Glu	Pro	Leu	Arg	Pro	Ala	Gln	Ile	Ser	Leu	
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<211> 869

<212> DNA

<213> Homo sapiens

<400> 5945

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<210> 5946
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 35 40 45
 Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn Gln Gln
 50 55 60
 Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Gly Glu Lys Ile Gln
 65 70 75 80
 Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu Glu Leu
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4140

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<210> 5950

<211> 397

<212> PRT

<213> Homo sapiens

<400> 5950

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Leu	Thr	Phe	Phe	Lys	Asp	Gly	Tyr	Glu	Gln	Leu	Arg	Gln	Leu	Ser	Gln
			20					25					30		
His	Ala	Met	Lys	Gly	Val	Ile	Arg	Val	Lys	Phe	Val	Asn	Asp	Leu	Gly
		35				40						45			
Val	Asp	Glu	Ala	Gly	Ile	Asp	Gln	Asp	Gly	Val	Phe	Lys	Glu	Phe	Leu
	50				55					60					
Glu	Glu	Ile	Ile	Lys	Arg	Val	Phe	Asp	Pro	Ala	Leu	Asn	Leu	Phe	Lys
65				70				75					80		
Thr	Thr	Ser	Gly	Asp	Glu	Arg	Leu	Tyr	Pro	Ser	Pro	Thr	Ser	Tyr	Ile
			85					90					95		
His	Glu	Asn	Tyr	Leu	Gln	Leu	Phe	Glu	Phe	Val	Gly	Lys	Met	Leu	Gly
			100					105					110		
Lys	Ala	Val	Tyr	Glu	Gly	Ile	Val	Val	Asp	Val	Pro	Phe	Ala	Ser	Phe
		115				120						125			
Phe	Leu	Ser	Gln	Leu	Leu	Gly	His	His	His	Ser	Val	Phe	Tyr	Ser	Ser
		130				135					140				
Val	Asp	Glu	Leu	Pro	Ser	Leu	Asp	Ser	Glu	Phe	Tyr	Lys	Asn	Leu	Thr
145				150						155				160	
Ser	Ile	Lys	Arg	Tyr	Asp	Gly	Asp	Ile	Thr	Asp	Leu	Gly	Leu	Thr	Leu
			165					170					175		
Ser	Tyr	Asp	Glu	Asp	Val	Met	Gly	Gln	Leu	Val	Cys	His	Glu	Leu	Ile
			180					185					190		
Pro	Gly	Gly	Lys	Thr	Ile	Pro	Val	Thr	Asn	Glu	Asn	Lys	Ile	Ser	Tyr
		195				200						205			
Ile	His	Leu	Met	Ala	His	Phe	Arg	Met	His	Thr	Gln	Ile	Lys	Asn	Gln

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      210              215              220
Thr Ala Ala Leu Ile Ser Gly Phe Arg Ser Ile Ile Lys Pro Glu Trp
225              230              235              240
Ile Arg Met Phe Ser Thr Pro Glu Leu Gln Arg Leu Ile Ser Gly Asp
      245              250              255
Asn Ala Glu Ile Asp Leu Glu Asp Leu Lys Lys His Thr Val Tyr Tyr
      260              265              270
Gly Gly Phe His Gly Ser His Arg Val Ile Ile Trp Leu Trp Asp Ile
      275              280              285
Leu Ala Ser Asp Phe Thr Pro Asp Glu Arg Ala Met Phe Leu Lys Phe
      290              295              300
Val Thr Ser Cys Ser Arg Pro Pro Leu Leu Gly Phe Ala Tyr Leu Lys
305              310              315              320
Pro Pro Phe Ser Ile Arg Cys Val Glu Val Ser Asp Asp Gln Asp Thr
      325              330              335
Gly Asp Thr Leu Gly Ser Val Leu Arg Gly Phe Phe Thr Ile Arg Lys
      340              345              350
Arg Glu Pro Gly Gly Arg Leu Pro Thr Ser Ser Thr Cys Phe Asn Leu
      355              360              365
Leu Lys Leu Pro Asn Tyr Ser Lys Lys Ser Val Leu Arg Glu Lys Leu
      370              375              380
Arg Tyr Ala Ile Ser Met Asn Thr Gly Phe Glu Leu Ser
385              390              395

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<210> 5951

<211> 1724

<212> DNA

<213> Homo sapiens

<400> 5951

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120
agaggagggg tcgccaggtt cccgtctgct ttccggaggcg gatcgagcgg gtgacttttg
180
tgcattcggt ttaatttttg gaaatctctc ttttttcctc cctcgctcgc tgccgggcat
240
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300
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360
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420
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480
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540
ccccgcttcc cgccgggggg gttcgcggcc ggcaggacca tgctgctgaa agagtaccgg
600
atctgcatgc cgctcaccgt agacgagtac aaaattggac agctgtacat gatcagcaaa
660
cacagccatg aacagagtga ccggggagaa ggggtggagg tcgtccagaa tgagcccttt
720

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gaggaccctc accatggcaa tgggcagttc accgagaagc ggggtgtatct caacagcaaa
 780
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 840
 aactattatc cctacacaat tacagaatac acatgttcct ttctgccgaa attctccatt
 900
 catatagaaa ccaagtatga ggacaacaaa ggaagcaatg acaccatttt cgacaatgaa
 960
 gccaaagacg tggagagaga agtttgcttt attgatattg cctgcgatga aattccagag
 1020
 cgctactaca aagaatctga ggatcctaag cacttcaagt cagagaagac aggacgggga
 1080
 cagttgaggg aaggctggag agatagtcac cagcctatca tgtgctccta caagctgggtg
 1140
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 1200
 gtccgagaca ttctgctgat tggacataga caggcttttg catggggttga tgagtgggtat
 1260
 gacatgacaa tggatgaagt ccgagaatct gaacgagcca ctcaggaagc caccaacaag
 1320
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 1380
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 1440
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 1500
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 1560
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 1620
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 1680
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<210> 5952

<211> 378

<212> PRT

<213> Homo sapiens

<400> 5952

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Gly	Arg	Pro	Ala	Leu	Arg	Leu	Gly	Ser	Ser	Leu	Ala	Gly	Leu	Gly	Gly
		20					25					30			
Ala	Pro	Arg	Phe	Pro	Pro	Gly	Gly	Phe	Ala	Ala	Gly	Arg	Thr	Met	Leu
		35				40					45				
Leu	Lys	Glu	Tyr	Arg	Ile	Cys	Met	Pro	Leu	Thr	Val	Asp	Glu	Tyr	Lys
	50					55					60				
Ile	Gly	Gln	Leu	Tyr	Met	Ile	Ser	Lys	His	Ser	His	Glu	Gln	Ser	Asp
65				70					75					80	
Arg	Gly	Glu	Gly	Val	Glu	Val	Val	Gln	Asn	Glu	Pro	Phe	Glu	Asp	Pro
				85				90					95		
His	His	Gly	Asn	Gly	Gln	Phe	Thr	Glu	Lys	Arg	Val	Tyr	Leu	Asn	Ser


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      100      105      110
Lys Leu Pro Ser Trp Ala Arg Ala Val Val Pro Lys Ile Phe Tyr Val
      115      120      125
Thr Glu Lys Ala Trp Asn Tyr Tyr Pro Tyr Thr Ile Thr Glu Tyr Thr
      130      135      140
Cys Ser Phe Leu Pro Lys Phe Ser Ile His Ile Glu Thr Lys Tyr Glu
145      150      155      160
Asp Asn Lys Gly Ser Asn Asp Thr Ile Phe Asp Asn Glu Ala Lys Asp
      165      170      175
Val Glu Arg Glu Val Cys Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro
      180      185      190
Glu Arg Tyr Tyr Lys Glu Ser Glu Asp Pro Lys His Phe Lys Ser Glu
      195      200      205
Lys Thr Gly Arg Gly Gln Leu Arg Glu Gly Trp Arg Asp Ser His Gln
      210      215      220
Pro Ile Met Cys Ser Tyr Lys Leu Val Thr Val Lys Phe Glu Val Trp
225      230      235      240
Gly Leu Gln Thr Arg Val Glu Gln Phe Val His Lys Val Val Arg Asp
      245      250      255
Ile Leu Leu Ile Gly His Arg Gln Ala Phe Ala Trp Val Asp Glu Trp
      260      265      270
Tyr Asp Met Thr Met Asp Glu Val Arg Glu Phe Glu Arg Ala Thr Gln
      275      280      285
Glu Ala Thr Asn Lys Lys Ile Gly Ile Phe Pro Pro Ala Ile Ser Ile
      290      295      300
Ser Ser Ile Pro Leu Leu Pro Ser Ser Val Arg Ser Ala Pro Ser Ser
305      310      315      320
Ala Pro Ser Thr Pro Leu Ser Thr Asp Ala Pro Glu Phe Leu Ser Val
      325      330      335
Pro Lys Asp Arg Pro Arg Lys Lys Ser Ala Pro Glu Thr Leu Thr Leu
      340      345      350
Pro Asp Pro Glu Lys Lys Ala Thr Leu Asn Leu Pro Gly Met His Ser
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Ser Asp Lys Pro Cys Arg Pro Lys Ser Glu
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<210> 5953

<211> 777

<212> DNA

<213> Homo sapiens

<400> 5953

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120
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180
aacagctttc tagttcaaga ggtgatggaa gaagagtgga atgctttgca gtcagtggag
240
aattgtccag aagacttggc tcagctggag gagctgatag acatggctgt gctggaggaa
300
attcaacagg agctgatcaa ccaagagcag tccatcatca gcgagtatga gaagagcttg
360

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cagtttgatg aaaagtgtct cagcatcatg ctggctgagt gggaggcaaa cccactcatc
 420
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 480
 tcacatcatt ctatgggggtt gaagacaact cattccctct gaggagcctt gtacatacaa
 540
 gccttttatt tataacttat tttgtattga aactttttaa caatactgaa gaaaaaaaaa
 600
 cttttccgac atctgttctt ggtcttttgt gacgcagggt gaagggggag gaatagaaaa
 660
 agacaaactg ccttggagga gataaaccaa ttttatgtct atcatgttat acaaaaatct
 720
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<210> 5954

<211> 152

<212> PRT

<213> Homo sapiens

<400> 5954

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Tyr	Lys	Leu	Val	Gly	Ser	Pro	Pro	Trp	Lys	Glu	Ala	Phe	Arg	Gln	Arg
			20					25				30			
Cys	Leu	Glu	Arg	Met	Arg	Asn	Ser	Arg	Asp	Arg	Leu	Leu	Asn	Arg	Tyr
		35					40				45				
Arg	Gln	Leu	Xaa	Ser	Ser	Gly	Pro	Gly	Asn	Ser	Gln	Asn	Ser	Phe	Leu
		50				55					60				
Val	Gln	Glu	Val	Met	Glu	Glu	Glu	Trp	Asn	Ala	Leu	Gln	Ser	Val	Glu
65					70				75					80	
Asn	Cys	Pro	Glu	Asp	Leu	Ala	Gln	Leu	Glu	Glu	Leu	Ile	Asp	Met	Ala
			85					90					95		
Val	Leu	Glu	Glu	Ile	Gln	Gln	Glu	Leu	Ile	Asn	Gln	Glu	Gln	Ser	Ile
		100						105				110			
Ile	Ser	Glu	Tyr	Glu	Lys	Ser	Leu	Gln	Phe	Asp	Glu	Lys	Cys	Leu	Ser
		115					120				125				
Ile	Met	Leu	Ala	Glu	Trp	Glu	Ala	Asn	Pro	Leu	Ile	Cys	Pro	Val	Cys
	130					135				140					
Thr	Lys	Pro	Val	Ile	Leu	Gly	Leu								
145						150									

<210> 5955

<211> 1459

<212> DNA

<213> Homo sapiens

<400> 5955

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 120
 gctcagcctg tgatctgtat ccactcagca tgcacttggg cagatgattt gtctgtgtgc
 180

tacccttccc cccatattac catacatatg cacggcggga ccagcagcga cggtagcagc
 240
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 300
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 360
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 420
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 480
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 540
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 660
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 720
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 1320
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 1459

<210> 5956

<211> 431

<212> PRT

<213> Homo sapiens

<400> 5956

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Arg	Phe	Lys	Ala	Leu	Pro	Pro	Gly	Ala	Gln	Pro	Val	Ile	Cys	Ile	His		
		35					40					45					
Ser	Ala	Cys	Thr	Trp	Ala	Asp	Asp	Leu	Ser	Val	Cys	Tyr	Pro	Ser	Pro		
	50					55					60						
His	Ile	Thr	Ile	His	Met	His	Gly	Gly	Thr	Ser	Ser	Asp	Gly	Ser	Ser		
65					70					75					80		
Ser	Met	Ala	Ala	Ile	Tyr	Gly	Gly	Val	Glu	Gly	Gly	Gly	Thr	Arg	Ser		
				85				90						95			
Glu	Val	Leu	Leu	Val	Ser	Glu	Asp	Gly	Lys	Ile	Leu	Ala	Glu	Ala	Asp		
			100					105					110				
Gly	Leu	Ser	Thr	Asn	His	Trp	Leu	Ile	Gly	Thr	Asp	Lys	Cys	Val	Glu		
		115					120					125					
Arg	Ile	Asn	Glu	Met	Val	Asn	Arg	Ala	Lys	Arg	Lys	Ala	Gly	Val	Asp		
	130					135					140						
Pro	Leu	Val	Pro	Leu	Arg	Ser	Leu	Gly	Leu	Ser	Leu	Ser	Gly	Gly	Asp		
145					150					155					160		
Gln	Glu	Asp	Ala	Gly	Arg	Ile	Leu	Ile	Glu	Glu	Leu	Arg	Asp	Arg	Phe		
				165					170					175			
Pro	Tyr	Leu	Ser	Glu	Ser	Tyr	Leu	Ile	Thr	Thr	Asp	Ala	Ala	Gly	Ser		
				180				185					190				
Ile	Ala	Thr	Ala	Thr	Pro	Asp	Gly	Gly	Val	Val	Leu	Ile	Ser	Gly	Thr		
		195					200					205					
Gly	Ser	Asn	Cys	Arg	Leu	Ile	Asn	Pro	Asp	Gly	Ser	Glu	Ser	Gly	Cys		
	210					215					220						
Gly	Gly	Trp	Gly	His	Met	Met	Gly	Asp	Glu	Gly	Ser	Ala	Leu	Ser	Ala		
225					230					235					240		
Pro	Ser	Ala	Tyr	Trp	Ile	Ala	His	Gln	Ala	Val	Lys	Ile	Val	Phe	Asp		
				245					250					255			
Ser	Ile	Asp	Asn	Leu	Glu	Ala	Ala	Pro	His	Asp	Ile	Gly	Tyr	Val	Lys		
			260					265					270				
Gln	Ala	Met	Phe	His	Tyr	Phe	Gln	Val	Pro	Asp	Arg	Leu	Gly	Ile	Leu		
		275					280					285					
Thr	His	Leu	Tyr	Arg	Asp	Phe	Asp	Lys	Cys	Arg	Phe	Ala	Gly	Phe	Cys		
	290					295					300						
Arg	Lys	Ile	Ala	Glu	Gly	Ala	Gln	Gln	Gly	Asp	Pro	Leu	Ser	Arg	Tyr		
305					310					315					320		
Ile	Phe	Arg	Lys	Ala	Gly	Glu	Met	Leu	Gly	Arg	His	Ile	Val	Ala	Val		
				325					330					335			
Leu	Pro	Glu	Ile	Asp	Pro	Val	Leu	Phe	Gln	Gly	Lys	Ile	Gly	Leu	Pro		
			340					345					350				
Ile	Leu	Cys	Val	Gly	Ser	Val	Trp	Lys	Ser	Trp	Glu	Leu	Leu	Lys	Glu		
		355					360					365					
Gly	Phe	Leu	Leu	Ala	Leu	Thr	Gln	Gly	Arg	Glu	Ile	Gln	Ala	Gln	Asn		
	370					375					380						

<210> 5957

<211> 855

<212> DNA

<213> Homo sapiens

<400> 5957

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 120
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 180
 gttcaagagg tgatggaaga agagtggaat gctttgcagt cagtggagaa ttgtccagaa
 240
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 300
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 360
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 420
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 480
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 540
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 660
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 720
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<210> 5958

<211> 106

<212> PRT

<213> Homo sapiens

<400> 5958

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 20 25 30
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 35 40 45
 Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val
 50 55 60
 Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys Pro Glu
 65 70 75 80
 Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu Glu Glu
 85 90 95
 Ile Gln Gln Glu Leu Ile Asn Gln Gly Leu

100

105

<210> 5959

<211> 830

<212> DNA

<213> Homo sapiens

<400> 5959

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 120
 ctatatgatg acaatctctt ctgtcatttg gtggatgaag tactcttggt tgaaagggag
 180
 ctacacagtg ttcatggcta tcctggcact ttgctaatt gtatgcatat tctatcagag
 240
 gaaacctgtt ttcaaagatg ggtgacgggg gagagaaaat ttgctcttca aaaaatggac
 300
 tcaatgcttt cctcagaagc tgcctgggta tcgcaatata aggatatcac tgacgtggat
 360
 gaaatgaaag ttccagattg tgcagaaact tttatgactc tactcttggg tataactgac
 420
 aggtataaaa atcttcccac agcttcccga aagcttcagt tcctggagtt acagaaggac
 480
 ttagtagatg attttaggat acgattaaca caagtgatga aagaagagac tagagcttcc
 540
 cttggctttc gatactgtgc aattcttaat gctgtgaact acatctcaac agtactagca
 600
 gattgggctg acaatgtttt ctttctacaa cttcaacagg ctgcactgga ggtgtttgca
 660
 gagaataata ctctgagtaa attgcagcta ggacagctag cctctatgga gagctctgtc
 720
 tttgatgaca tgattaacct cttagaacgt ttaaagcatg atatgttgac ccgtcaagta
 780
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<210> 5960

<211> 251

<212> PRT

<213> Homo sapiens

<400> 5960

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 Tyr Asp Asp Asn Leu Phe Cys His Leu Val Asp Glu Val Leu Leu Phe
 20 25 30
 Glu Arg Glu Leu His Ser Val His Gly Tyr Pro Gly Thr Phe Ala Asn
 35 40 45
 Cys Met His Ile Leu Ser Glu Glu Thr Cys Phe Gln Arg Trp Val Thr
 50 55 60
 Gly Glu Arg Lys Phe Ala Leu Gln Lys Met Asp Ser Met Leu Ser Ser
 65 70 75 80
 Glu Ala Ala Trp Val Ser Gln Tyr Lys Asp Ile Thr Asp Val Asp Glu

				85						90						95		
Met	Lys	Val	Pro	Asp	Cys	Ala	Glu	Thr	Phe	Met	Thr	Leu	Leu	Leu	Val			
			100					105						110				
Ile	Thr	Asp	Arg	Tyr	Lys	Asn	Leu	Pro	Thr	Ala	Ser	Arg	Lys	Leu	Gln			
			115					120					125					
Phe	Leu	Glu	Leu	Gln	Lys	Asp	Leu	Val	Asp	Asp	Phe	Arg	Ile	Arg	Leu			
			130			135					140							
Thr	Gln	Val	Met	Lys	Glu	Glu	Thr	Arg	Ala	Ser	Leu	Gly	Phe	Arg	Tyr			
145				150						155					160			
Cys	Ala	Ile	Leu	Asn	Ala	Val	Asn	Tyr	Ile	Ser	Thr	Val	Leu	Ala	Asp			
				165					170					175				
Trp	Ala	Asp	Asn	Val	Phe	Phe	Leu	Gln	Leu	Gln	Gln	Ala	Ala	Leu	Glu			
				180				185						190				
Val	Phe	Ala	Glu	Asn	Asn	Thr	Leu	Ser	Lys	Leu	Gln	Leu	Gly	Gln	Leu			
			195				200					205						
Ala	Ser	Met	Glu	Ser	Ser	Val	Phe	Asp	Asp	Met	Ile	Asn	Leu	Leu	Glu			
						215					220							
Arg	Leu	Lys	His	Asp	Met	Leu	Thr	Arg	Gln	Val	Asp	His	Val	Phe	Arg			
225				230						235					240			
Glu	Val	Lys	Asp	Ala	Ala	Lys	Leu	Tyr	Lys	Lys								
				245					250									

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<210> 5961
<211> 585
<212> DNA
<213> Homo sapiens
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<400> 5961
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120
aattagagac tgagacaggg caggggtgccg aggtgtctgc atgcgtttca tgtggatgcc
180
cgtgtctatt ctggcctgct cctgggcccc ctccccactc agccctggct gatgagaatg
240
ggacagggac tcccttctcg tgtccctgtg cagcgtcggc ccaggaggta gcagagcagt
300
atatgcacat ctgggtgtgc cctcctgcat gtccccacac atctgtcatt cctgtctttg
360
cacacctatg tgactccgcg atgttttgtt ccttatgtgt cccatgcatg ctccccatct
420
gaccttgctg gttctcgcgt gtctgtgtgc ggccagtcct gccttcactc tctcatgggt
480
ggccctggca gcatgtctgg ctccccagca ggtgagctca ggagataaga tggaagatgc
540
aacagccaat ggtaagaag actccaaggc ccagatggg tccac
585

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<210> 5962
<211> 114
<212> PRT
<213> Homo sapiens
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<400> 5962

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Met Cys Gly Asp Met Gln Glu Gly Thr Pro Arg Cys Ala Tyr Thr Ala
 1           5           10           15
Leu Leu Pro Pro Gly Pro Thr Leu His Arg Asp Thr Arg Arg Glu Ser
          20           25           30
Leu Ser His Ser His Gln Pro Gly Leu Ser Gly Glu Gly Ala Gln Glu
          35           40           45
Gln Ala Arg Ile Asp Thr Gly Ile His Met Lys Arg Met Gln Thr Pro
          50           55           60
Arg His Pro Ala Leu Ser Gln Ser Leu Ile Lys Phe Gly Ile Leu Phe
65           70           75           80
Asp Pro Ser Ile Phe Phe Leu Glu Thr Gly Ser Arg Phe Ile Ala Gln
          85           90           95
Ala Glu Cys Ser Gly Tyr Ser Gln Ala Pro Leu Glu Arg Thr Ala Ala
          100          105          110
Pro Ser

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<210> 5963

<211> 1288

<212> DNA

<213> Homo sapiens

<400> 5963

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120
gaagaaaaag tgaaacgatc tgtgaaagat gctgccaaga agggccagaa ggatgtctgc
180
atagttcttg ccaaggagat gatcagggtca aggaaggctg tgagcaagct gtatgcatcc
240
aaagcacaca tgaactcagt gctcatgggg atgaagaacc agctcgcggt cttgcgagtg
300
gctggttccc tgcagaagag cacagaagtg atgaaggcca tgcaaagtct tgtgaagatt
360
ccagagattc aggccaccat gagggagttg tccaaagaaa tgatgaaggc tgggatcata
420
gaggagatgt tagaggacac ttttgaaagc atggacgatc aggaagaaat ggaggaagaa
480
gcagaaatgg aaattgacag aattctcttt gaaattacag caggggcctt gggcaaagca
540
cccagtaaag tgactgatgc ccttccagag ccagaacctc caggagcgat ggctgcctca
600
gaggatgagg aggaggagga agaggctctg gaggccatgc agtcccggtt ggccacactc
660
cgcagctagg ggctgcctac cccgctgggt gtgcacacac tcctctcaag agctgccatt
720
ttatgtgtct cttgcactac acctctgttg tgaggactac cattttggag aaggttctgt
780
ttgtctcttt tcattctctg ccaggtttt gggatcgcaa agggattgtt cttataaaag
840
tggcataaat aaatgcatca tttttaggag tatagacaga tatatcttat tgtggggagg
900

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ggaaagaaat ccattctgctc atgaagcact tctgaaaata taggtgattg cctgaatgtc
 960
 gaagactcta cttttgtcta taaaacacta tataaatgaa ttttaataaa tttttgcttc
 1020
 agcacttggc cccattgtag attgccctgt gcagtaaact ttcaaggtgt cagctgcccc
 1080
 agattgcttc atttgctggg tgtggaaaga gttgctatgg ccaggcatat gggatttggg
 1140
 agctcagcag aagtgaacttc tgctctgtgg ttgctgctcc ccggctttca cagacatggg
 1200
 atggcagcca ttcttttatc tatttaacca agaggatgct ggggaattgt gctgcttgct
 1260
 ctgttggtg gtggctgcat tatgtccg
 1288

<210> 5964

<211> 222

<212> PRT

<213> Homo sapiens

<400> 5964

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Asn	Glu	Trp	Ser	Leu	Lys	Ile	Arg	Lys	Glu	Met	Arg	Val	Val	Asp	Arg
			20					25					30		
Gln	Ile	Arg	Asp	Ile	Gln	Arg	Glu	Glu	Glu	Lys	Val	Lys	Arg	Ser	Val
			35				40					45			
Lys	Asp	Ala	Ala	Lys	Lys	Gly	Gln	Lys	Asp	Val	Cys	Ile	Val	Leu	Ala
			50			55					60				
Lys	Glu	Met	Ile	Arg	Ser	Arg	Lys	Ala	Val	Ser	Lys	Leu	Tyr	Ala	Ser
65				70					75					80	
Lys	Ala	His	Met	Asn	Ser	Val	Leu	Met	Gly	Met	Lys	Asn	Gln	Leu	Ala
				85					90					95	
Val	Leu	Arg	Val	Ala	Gly	Ser	Leu	Gln	Lys	Ser	Thr	Glu	Val	Met	Lys
			100					105					110		
Ala	Met	Gln	Ser	Leu	Val	Lys	Ile	Pro	Glu	Ile	Gln	Ala	Thr	Met	Arg
			115				120					125			
Glu	Leu	Ser	Lys	Glu	Met	Met	Lys	Ala	Gly	Ile	Ile	Glu	Glu	Met	Leu
			130				135					140			
Glu	Asp	Thr	Phe	Glu	Ser	Met	Asp	Asp	Gln	Glu	Glu	Met	Glu	Glu	Glu
145				150					155					160	
Ala	Glu	Met	Glu	Ile	Asp	Arg	Ile	Leu	Phe	Glu	Ile	Thr	Ala	Gly	Ala
				165					170					175	
Leu	Gly	Lys	Ala	Pro	Ser	Lys	Val	Thr	Asp	Ala	Leu	Pro	Glu	Pro	Glu
			180					185					190		
Pro	Pro	Gly	Ala	Met	Ala	Ala	Ser	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Glu
			195				200					205			
Ala	Leu	Glu	Ala	Met	Gln	Ser	Arg	Leu	Ala	Thr	Leu	Arg	Ser		
			210				215					220			

<210> 5965

<211> 1011

<212> DNA

<213> Homo sapiens

<400> 5965

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 120
 agatgcctgg agagaatgag aaacagccgg gacaggctcc taaacaggta ccgccaggct
 180
 ggaagcagtg ggccagggaa ttctcagaac agctttctag ttcaagaggt gatggaagaa
 240
 gagtggaatg ctttgcagnn tcagtgggag aattgtccag aagacttggc tcagtgggag
 300
 gagctgatag acatggctgt gctggaggaa attcaacagg agctgatcaa ccaagagcag
 360
 tccatcatca gcgagtatga gaagagcttg cagtttgatg aaaagtgtct cagcatcatg
 420
 ctggctgagt gggaggcaaa cccactcatc tgtcctgtat gtacaaagta caactgaga
 480
 atcacaagcg gtgtgggtgt gtgtcagtg gtgcctgtcca tcccatctca ttcttctgag
 540
 ttgacagagc agaagcttcg tgccctgttta gagggtagta taaatgagca cagtgcacat
 600
 tgtccccaca cacctgaatt ttcagtcact ggaggaacag aagaaaagtc cagtcttctc
 660
 atgagctgtc tggcctgtga tacttgggct gtgatcctct agagccagct tggactcaca
 720
 tcattctatg gggttgaaga caactcattc cctctgagga gccttgtaca tacaagcctt
 780
 ttatttataa cttattttgt attgaaactt ttaaacaata ctgaagaaaa aaaaactttt
 840
 ccgacatctg ttcttggctt tttgtgacgc aggttgaagg gggaggaata gaaaaagaca
 900
 aactgccttg gaggagataa accaatttta tgtctatcat gttatacaaa aatctagaaa
 960
 taatagattt gtacagaaaa aaatgataat aaatgagaac acaaaacata t
 1011

<210> 5966

<211> 233

<212> PRT

<213> Homo sapiens

<400> 5966

Gly	Asn	Gly	Ser	Cys	Gly	Phe	Val	Ser	Arg	Glu	Glu	Glu	Met	Ala	Glu
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Ser	Leu	Arg	Ser	Pro	Arg	Arg	Ser	Leu	Tyr	Lys	Leu	Val	Gly	Ser	Pro
			20					25				30			
Pro	Trp	Lys	Glu	Ala	Phe	Arg	Gln	Arg	Cys	Leu	Glu	Arg	Met	Arg	Asn
		35					40				45				
Ser	Arg	Asp	Arg	Leu	Leu	Asn	Arg	Tyr	Arg	Gln	Ala	Gly	Ser	Ser	Gly
	50					55				60					
Pro	Gly	Asn	Ser	Gln	Asn	Ser	Phe	Leu	Val	Gln	Glu	Val	Met	Glu	Glu
65				70					75				80		
Glu	Trp	Asn	Ala	Leu	Gln	Xaa	Gln	Trp	Xaa	Asn	Cys	Pro	Glu	Asp	Leu

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      85              90              95
Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu Glu Glu Ile Gln
      100              105              110
Gln Glu Leu Ile Asn Gln Glu Gln Ser Ile Ile Ser Glu Tyr Glu Lys
      115              120              125
Ser Leu Gln Phe Asp Glu Lys Cys Leu Ser Ile Met Leu Ala Glu Trp
      130              135              140
Glu Ala Asn Pro Leu Ile Cys Pro Val Cys Thr Lys Tyr Asn Leu Arg
145              150              155              160
Ile Thr Ser Gly Val Val Val Cys Gln Cys Gly Leu Ser Ile Pro Ser
      165              170              175
His Ser Ser Glu Leu Thr Glu Gln Lys Leu Arg Ala Cys Leu Glu Gly
      180              185              190
Ser Ile Asn Glu His Ser Ala His Cys Pro His Thr Pro Glu Phe Ser
      195              200              205
Val Thr Gly Gly Thr Glu Glu Lys Ser Ser Leu Leu Met Ser Cys Leu
      210              215              220
Ala Cys Asp Thr Trp Ala Val Ile Leu
225              230

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<210> 5967

<211> 1806

<212> DNA

<213> Homo sapiens

<400> 5967

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120
tgtgcttttg ttgctaggca gtcaacagca gggctactaa agcacttcta atttagacaa
180
atcttttctc ctattttaga aatggatttc aatggtgttc agtttgtttg cagaaaccta
240
ctgaaagtga gcatgttttt gaacacatta acaccgaagt tctacgtggc cctaacaggc
300
acttcctcac taatatcagg gcttattttg atatttgaat ggtggtattt tcgcaaatac
360
ggaacttcat tcattgaaca agtctcagta agccacttgc gcccccttct gggagggggt
420
gacaacaact cttccaacaa ttctaattcc agtaacgggg actcagattc caataggcaa
480
agtgtctcag aatgcaaagt atggcgaaat ccactaaatt tatttagggg tgctgaatac
540
aatcggtata cttgggtgac aggacgagag cctcttactt actatgacat gaatctctct
600
gccaagacc accagacatt ctttacttgt gactcggacc atctgcgtcc cgcagatgca
660
ataatgcaga aagcctggag agagagaaac cccaagcta ggatttctgc agctcatgaa
720
gccttgagga taaatgagac gagacaccaa tgtcttggtg tacatcaaaa gaaggctagc
780
aatgtgtgcc agaagactcg ggaggaccag ggaagcaaag cccttctgga actacaagca
840

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tatgctgatg ttcaggcagt cttagcaaag tatgatgata taagcttacc aaagtcagca
 900
 acaatatgct acacagctgc tttgctcaaa gcaagagctg tctctgacaa attctctcct
 960
 gaggctgcat ctggcgggg gctgagcaca gcagagatga atgcagtaga ggccattcat
 1020
 agagctgtgg aattcaatcc tcatgtgcca aaatacctac tagaaatgaa aagcttaatc
 1080
 ctacccccag aacatatacct gaagagagga gacagtgaag caatagcata tgcattcttt
 1140
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 1200
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 1320
 ccaaagaagg agcttccctt ctttattctc tttactgctg gattatgttc cttcacagcc
 1380
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 1440
 agtgtttgcc tagagggagg ccttggggaa tggatgggga aagccaaggg cataaaagca
 1500
 gcgtgagaga aatgggggtg ccttacagaa atgggtacga gcctgcaaag atcattgctc
 1560
 accatttaat tttcatgatc gtcaatggaa tcaaagcatt aagggtcaaa tgagaaagtg
 1620
 caggttgtta ctgcatgcct tgcctcattt cacaacaaat tcttagcagt ttccaaaaaa
 1680
 tgcaggaggt ccaaaaggat ggaatgattt aggaaatcct agcaaataaa aatgtgtggg
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 ctttcc
 1806

<210> 5968

<211> 434

<212> PRT

<213> Homo sapiens

<400> 5968

Met	Asp	Phe	Asn	Gly	Val	Gln	Phe	Val	Cys	Arg	Asn	Leu	Leu	Lys	Val
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Ser	Met	Phe	Leu	Asn	Thr	Leu	Thr	Pro	Lys	Phe	Tyr	Val	Ala	Leu	Thr
			20					25					30		
Gly	Thr	Ser	Ser	Leu	Ile	Ser	Gly	Leu	Ile	Leu	Ile	Phe	Glu	Trp	Trp
			35				40					45			
Tyr	Phe	Arg	Lys	Tyr	Gly	Thr	Ser	Phe	Ile	Glu	Gln	Val	Ser	Val	Ser
			50			55				60					
His	Leu	Arg	Pro	Leu	Leu	Gly	Gly	Val	Asp	Asn	Asn	Ser	Ser	Asn	Asn
65					70				75					80	
Ser	Asn	Ser	Ser	Asn	Gly	Asp	Ser	Asp	Ser	Asn	Arg	Gln	Ser	Val	Ser
				85				90					95		
Glu	Cys	Lys	Val	Trp	Arg	Asn	Pro	Leu	Asn	Leu	Phe	Arg	Gly	Ala	Glu

```

      100      105      110
Tyr Asn Arg Tyr Thr Trp Val Thr Gly Arg Glu Pro Leu Thr Tyr Tyr
      115      120      125
Asp Met Asn Leu Ser Ala Gln Asp His Gln Thr Phe Phe Thr Cys Asp
      130      135      140
Ser Asp His Leu Arg Pro Ala Asp Ala Ile Met Gln Lys Ala Trp Arg
145      150      155      160
Glu Arg Asn Pro Gln Ala Arg Ile Ser Ala Ala His Glu Ala Leu Glu
      165      170      175
Ile Asn Glu Thr Arg His Gln Cys Leu Gly Val His Gln Lys Lys Ala
      180      185      190
Ser Asn Val Cys Gln Lys Thr Arg Glu Asp Gln Gly Ser Lys Ala Leu
      195      200      205
Leu Glu Leu Gln Ala Tyr Ala Asp Val Gln Ala Val Leu Ala Lys Tyr
      210      215      220
Asp Asp Ile Ser Leu Pro Lys Ser Ala Thr Ile Cys Tyr Thr Ala Ala
225      230      235      240
Leu Leu Lys Ala Arg Ala Val Ser Asp Lys Phe Ser Pro Glu Ala Ala
      245      250      255
Ser Arg Arg Gly Leu Ser Thr Ala Glu Met Asn Ala Val Glu Ala Ile
      260      265      270
His Arg Ala Val Glu Phe Asn Pro His Val Pro Lys Tyr Leu Leu Glu
      275      280      285
Met Lys Ser Leu Ile Leu Pro Pro Glu His Ile Leu Lys Arg Gly Asp
      290      295      300
Ser Glu Ala Ile Ala Tyr Ala Phe Phe His Leu Ala His Trp Lys Arg
305      310      315      320
Val Glu Gly Ala Leu Asn Leu Leu His Cys Thr Trp Glu Gly Thr Phe
      325      330      335
Arg Met Ile Pro Tyr Pro Leu Glu Lys Gly His Leu Phe Tyr Pro Tyr
      340      345      350
Pro Ile Cys Thr Glu Thr Ala Asp Arg Glu Leu Leu Pro Ser Phe His
      355      360      365
Glu Val Ser Val Tyr Pro Lys Lys Glu Leu Pro Phe Phe Ile Leu Phe
      370      375      380
Thr Ala Gly Leu Cys Ser Phe Thr Ala Met Leu Ala Leu Leu Thr His
385      390      395      400
Gln Phe Pro Glu Leu Met Gly Val Phe Ala Lys Ala Val Ser Val Cys
      405      410      415
Leu Glu Gly Gly Leu Gly Glu Trp Met Gly Lys Ala Lys Gly Ile Lys
      420      425      430
Ala Ala

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<210> 5969

<211> 429

<212> DNA

<213> Homo sapiens

<400> 5969

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ctgggaggcg gggaaggggt cccggatctg cagcctgggg tcttgccag ccaggccatg
120

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attgagaaga tcctgagcga ggacccccgg tggcaagatg ccaacttcgt gctgggcagc
 180
 tacaagacgg agcagtgtccc gaagccgccca cgctgtgtcc gccagggtta tgcgtgcccc
 240
 cactaccaca atagccggga caggcggcgc aacccccggc ggttcagta cagggtccacg
 300
 ccctgccccca gcgtgaagca cggggatgag tggggggaac cctcacgctg cgatggcggc
 360
 gacggctgcc agtattgccca ctcccgcacg gagcagcagt tccatcccga gatctacaaa
 420
 tctacaaaa
 429

<210> 5970

<211> 143

<212> PRT

<213> Homo sapiens

<400> 5970

Arg	Pro	Pro	Val	Cys	Asp	Val	Arg	Glu	Leu	Gln	Ala	Gln	Glu	Ala	Leu
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Gln	Asn	Gly	Gln	Leu	Gly	Gly	Gly	Glu	Gly	Val	Pro	Asp	Leu	Gln	Pro
		20					25					30			
Gly	Val	Leu	Ala	Ser	Gln	Ala	Met	Ile	Glu	Lys	Ile	Leu	Ser	Glu	Asp
	35					40					45				
Pro	Arg	Trp	Gln	Asp	Ala	Asn	Phe	Val	Leu	Gly	Ser	Tyr	Lys	Thr	Glu
	50					55					60				
Gln	Cys	Pro	Lys	Pro	Pro	Arg	Leu	Cys	Arg	Gln	Gly	Tyr	Ala	Cys	Pro
65				70						75				80	
His	Tyr	His	Asn	Ser	Arg	Asp	Arg	Arg	Arg	Asn	Pro	Arg	Arg	Phe	Gln
			85					90						95	
Tyr	Arg	Ser	Thr	Pro	Cys	Pro	Ser	Val	Lys	His	Gly	Asp	Glu	Trp	Gly
			100					105					110		
Glu	Pro	Ser	Arg	Cys	Asp	Gly	Gly	Asp	Gly	Cys	Gln	Tyr	Cys	His	Ser
		115				120					125				
Arg	Thr	Glu	Gln	Gln	Phe	His	Pro	Glu	Ile	Tyr	Lys	Ser	Thr	Lys	
	130					135					140				

<210> 5971

<211> 565

<212> DNA

<213> Homo sapiens

<400> 5971

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 120
 catgtccctt aggtcagcta agcccacatc agtgtccaaa taggcaacat ccctatttta
 180
 tagatggtca tccccatttt agagatagct cccttttata tccccatttt acaggtgaag
 240
 gaattgaggc acagaagggt aggtcacttc tgcaagatga ccagctgaac caaaatttca
 300

gggcttcaaa caccaaagt gttcctttgt cttccgtttc ccacttgctt cccagaggct
 360
 cagcaagtag cctctggcca ctgagcatcc tcccgccac tttgctccct gcctcctgat
 420
 cccaggactg tggccgtgga tgccagagcg aggatgtgaa tcctgttggg ttctgaagcc
 480
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 565

<210> 5972

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5972

Met	His	Arg	Ala	Leu	Ser	Cys	Pro	Leu	Gly	Gln	Leu	Ser	Pro	His	Gln
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Cys	Pro	Asn	Arg	Gln	His	Pro	Tyr	Phe	Ile	Asp	Gly	His	Pro	His	Phe
			20					25					30		
Arg	Asp	Ser	Ser	Leu	Leu	Tyr	Pro	His	Phe	Thr	Gly	Glu	Gly	Ile	Glu
		35				40						45			
Ala	Gln	Lys	Val	Arg	Ser	Leu	Gln	Asp	Asp	Gln	Leu	Asn	Gln	Asn	
		50				55				60					
Phe	Arg	Ala	Ser	Asn	Thr	Lys	Cys	Val	Pro	Leu	Ser	Ser	Val	Ser	His
65				70					75					80	
Leu	Leu	Pro	Arg	Gly	Ser	Ala	Ser	Ser	Leu	Trp	Pro	Leu	Ser	Ile	Leu
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Pro	Pro	Thr	Leu	Leu	Pro	Ala	Ser								
				100											

<210> 5973

<211> 797

<212> DNA

<213> Homo sapiens

<400> 5973

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 120
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 180
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 240
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 300
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 360
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 420
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 480

tttgccttca cgggagtaga aggaggcggc gtccgccgcg gccgacggta gttecgcttcc
 540
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 600
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 660
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<210> 5974

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5974

Met	Glu	Gly	Ser	Gly	Thr	Gly	Lys	Arg	Arg	Gly	Lys	Ala	Ala	Lys	Thr
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Ser	Leu	Arg	Ile	Met	Asp	Ala	Arg	Ala	Gln	Leu	Leu	Leu	Arg	Val	Pro
			20					25					30		
His	Pro	Gly	Pro	Ser	Leu	Thr	Ser	Gly	Ala	Leu	Thr	His	Ile	Arg	Asp
		35					40					45			
Pro	His	Pro	Gly	Leu	Ser	Pro	Thr	Ser	Gly	Thr	Leu	Met	Pro	Gly	Arg
		50				55				60					
Arg	Arg	Gly	Gly	Pro	Ser	Phe	Gly	Thr	Pro	Ala	Leu	Arg	Arg	Arg	Lys
65					70					75				80	
Cys	His	Arg	Glu	Ala	Pro	Ala	Ser	Gly	Leu	Ser	Thr	Ala	Ala	Arg	Glu
			85					90						95	
Arg	Leu	Trp	Trp	Pro	Arg	Ala	Arg	Val	Cys	Arg					
			100					105							

<210> 5975

<211> 2175

<212> DNA

<213> Homo sapiens

<400> 5975

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 120
 cagagggcca cgtacaagta tgagatgatt aacaagcaga atgagcagat gcatgcgctg
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 240
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 360
 aagcaggacc ttgcttatga acgtcagtat gaacagcaaa cctatcaggt gatccctgag
 420

gtgatcaaaa acttcatcca gtatttccac aaaactgtct cagatttgat tgaccagaaa
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600
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660
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1020
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1080
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1140
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1260
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 2175

<210> 5976

<211> 564

<212> PRT

<213> Homo sapiens

<400> 5976

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Tyr	Ala	Tyr	Pro	Ser	Asp	Tyr	Asp	Met	His	Thr	Gly	Asp	Pro	Lys	Gln
			20					25					30		
Asp	Leu	Ala	Tyr	Glu	Arg	Gln	Tyr	Glu	Gln	Gln	Thr	Tyr	Gln	Val	Ile
	35					40					45				
Pro	Glu	Val	Ile	Lys	Asn	Phe	Ile	Gln	Tyr	Phe	His	Lys	Thr	Val	Ser
	50				55					60					
Asp	Leu	Ile	Asp	Gln	Lys	Val	Tyr	Glu	Leu	Gln	Ala	Ser	Arg	Val	Ser
65					70				75					80	
Ser	Asp	Val	Ile	Asp	Gln	Lys	Val	Tyr	Glu	Ile	Gln	Asp	Ile	Tyr	Glu
			85					90					95		
Asn	Ser	Trp	Thr	Lys	Leu	Thr	Glu	Arg	Phe	Phe	Lys	Asn	Thr	Pro	Trp
			100					105					110		
Pro	Glu	Ala	Glu	Ala	Ile	Ala	Pro	Gln	Val	Gly	Asn	Asp	Ala	Val	Phe
	115						120					125			
Leu	Ile	Leu	Tyr	Lys	Glu	Leu	Tyr	Tyr	Arg	His	Ile	Tyr	Ala	Lys	Val
	130					135					140				
Ser	Gly	Gly	Pro	Ser	Leu	Glu	Gln	Arg	Phe	Glu	Ser	Tyr	Tyr	Asn	Tyr
145					150					155				160	
Cys	Asn	Leu	Phe	Asn	Tyr	Ile	Leu	Asn	Ala	Asp	Gly	Pro	Ala	Pro	Leu
			165					170					175		
Glu	Leu	Pro	Asn	Gln	Trp	Leu	Trp	Asp	Ile	Ile	Asp	Glu	Phe	Ile	Tyr
			180					185					190		
Gln	Phe	Gln	Ser	Phe	Ser	Gln	Tyr	Arg	Cys	Lys	Thr	Ala	Lys	Lys	Ser
	195						200					205			
Glu	Glu	Glu	Ile	Asp	Phe	Leu	Arg	Ser	Asn	Pro	Lys	Ile	Trp	Asn	Val
	210					215					220				
His	Ser	Val	Leu	Asn	Val	Leu	His	Ser	Leu	Val	Asp	Lys	Ser	Asn	Ile
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Asn	Arg	Gln	Leu	Glu	Val	Tyr	Thr	Ser	Gly	Gly	Asp	Pro	Glu	Ser	Val
			245						250				255		
Ala	Gly	Glu	Tyr	Gly	Arg	His	Ser	Leu	Tyr	Lys	Met	Leu	Gly	Tyr	Phe
		260				265						270			
Ser	Leu	Val	Gly	Leu	Leu	Arg	Leu	His	Ser	Leu	Leu	Gly	Asp	Tyr	Tyr
	275					280						285			
Gln	Ala	Ile	Lys	Val	Leu	Glu	Asn	Ile	Glu	Leu	Asn	Lys	Lys	Ser	Met
	290					295					300				
Tyr	Ser	Arg	Val	Pro	Glu	Cys	Gln	Val	Thr	Thr	Tyr	Tyr	Tyr	Val	Gly
305					310					315				320	
Phe	Ala	Tyr	Leu	Met	Met	Arg	Arg	Tyr	Gln	Asp	Ala	Ile	Arg	Val	Phe

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Ala Asn Ile Leu Leu Tyr Ile Gln Arg Thr Lys Ser Met Phe Gln Arg
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Thr Thr Tyr Lys Tyr Glu Met Ile Asn Lys Gln Asn Glu Gln Met His
          355          360          365
Ala Leu Leu Ala Ile Ala Leu Thr Met Tyr Pro Met Arg Ile Asp Glu
          370          375          380
Ser Ile His Leu Gln Leu Arg Glu Lys Tyr Gly Asp Lys Met Leu Arg
          385          390          395          400
Met Gln Lys Gly Asp Pro Gln Val Tyr Glu Glu Leu Phe Ser Tyr Ser
          405          410          415
Cys Pro Lys Phe Leu Ser Pro Val Val Pro Asn Tyr Asp Asn Val His
          420          425          430
Pro Asn Tyr His Lys Glu Pro Phe Leu Gln Gln Leu Lys Val Phe Ser
          435          440          445
Asp Glu Val Gln Gln Gln Ala Gln Leu Ser Thr Ile Arg Ser Phe Leu
          450          455          460
Lys Leu Tyr Thr Thr Met Pro Val Ala Lys Leu Ala Gly Phe Leu Asp
          465          470          475          480
Leu Thr Glu Gln Glu Phe Arg Ile Gln Leu Leu Val Phe Lys His Lys
          485          490          495
Met Lys Asn Leu Val Trp Thr Ser Gly Ile Ser Ala Leu Asp Gly Glu
          500          505          510
Phe Gln Ser Ala Ser Glu Val Asp Phe Tyr Ile Asp Lys Asp Met Ile
          515          520          525
His Ile Ala Asp Thr Lys Val Ala Arg Arg Tyr Gly Asp Phe Phe Ile
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<210> 5977

<211> 2320

<212> DNA

<213> Homo sapiens

<400> 5977

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180
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480

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cccagcactt tgggaggcag aggtgggcag atcattnagg ccaggagtgc gagaccagcc
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<210> 5978

<211> 77

<212> PRT

<213> Homo sapiens

<400> 5978

Met	Thr	Lys	Leu	Ile	Lys	Lys	Ser	Lys	Asn	Thr	Leu	Asn	Leu	Ser	Arg
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Ile	Arg	Leu	Gly	Ser	Val	Ala	His	Ala	Cys	Asp	Pro	Ser	Thr	Leu	Gly
			20					25					30		
Gly	Arg	Gly	Gly	Gln	Ile	Ile	Xaa	Ala	Arg	Ser	Ser	Arg	Pro	Ala	Trp
			35				40					45			
Thr	Thr	Trp	Arg	Xaa	Val	Phe	Thr	Lys	Asn	Thr	Lys	Ile	Ser	Trp	Ala
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Trp	Trp	Tyr	Thr	Pro	Val	Ile	Pro	Ala	Thr	Gln	Glu	Ala			
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<210> 5979

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 5979

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 1095

<210> 5980
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 5980
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 Ser Gly Gln Glu Asp Tyr Asp Arg Leu Arg Pro Leu Ser Tyr Gln Asn
 35 40 45
 Thr His Leu Val Leu Ile Cys Tyr Asp Val Met Asn Pro Thr Ser Tyr
 50 55 60
 Asp Asn Val Leu Ile Lys Trp Phe Pro Glu Val Thr His Phe Cys Arg
 65 70 75 80
 Gly Ile Pro Met Val Leu Ile Gly Cys Lys Thr Asp Leu Arg Lys Asp
 85 90 95
 Lys Glu Gln Leu Arg Lys Leu Arg Ala Ala Gln Leu Glu Pro Ile Thr
 100 105 110
 Tyr Met Gln Gly Leu Ser Ala Cys Glu Gln Ile Arg Ala Ala Leu Tyr
 115 120 125
 Leu Glu Cys Ser Ala Lys Phe Arg Glu Asn Val Glu Asp Val Phe Arg
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 145 150 155 160
 Lys Lys Arg Arg Leu Cys Leu Leu Leu
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<210> 5981
 <211> 677
 <212> DNA
 <213> Homo sapiens

<400> 5981
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 677

<210> 5982

<211> 98

<212> PRT

<213> Homo sapiens

<400> 5982

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Arg	Ile	Pro	Lys	Ser	Asp	Asp	Gly	Thr	Arg	Thr	Gly	Arg	Asn	Asp	Ser
			20					25					30		
Pro	Arg	Ala	Pro	Leu	Pro	Arg	Ser	Ala	Arg	Arg	Pro	Ser	Lys	Ala	
			35				40					45			
Asn	Leu	His	Thr	Leu	Gly	Gln	Leu	Lys	Leu	Ser	Arg	Arg	Cys	Arg	Glu
			50			55				60					
Pro	Arg	Leu	Gly	Arg	Ala	Gly	Gln	Gln	Arg	Leu	His	Pro	Arg	Thr	Arg
65					70					75				80	
Pro	Arg	Arg	Gly	Ser	Gly	Pro	Leu	Val	Arg	Ala	Gly	Arg	Arg	Gly	Trp
				85					90					95	

Gly Lys

<210> 5983

<211> 790

<212> DNA

<213> Homo sapiens

<400> 5983

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 120

cattgttttc cttaaattac tggtaaattt tgaaataaac agtcccaaga tgtgattatt
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<210> 5984

<211> 186

<212> PRT

<213> Homo sapiens

<400> 5984

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Thr	His	Ser	Gly	Arg	Gly	Thr	Met	Tyr	Ser	Ser	Trp	Val	Lys	Ser	Pro
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Thr	Val	Phe	Cys	Thr	Ser	Glu	Asp	Gly	Leu	Val	Ser	Gly	Phe	Gly	Arg
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185

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<211> 737

<212> DNA

<213> Homo sapiens

<400> 5985

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<211> 165

<212> PRT

<213> Homo sapiens

<400> 5986

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			35				40						45		
Gln	His	Val	Asp	Glu	Ser	Gly	Leu	Ser	Leu	Thr	Leu	Ala	Lys	Glu	Gln
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Glu Thr Leu Glu Gln Arg Leu Leu Val Thr Glu Leu Met Arg Leu Leu					
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Gly Pro Ser Gln Glu Arg Glu Ile Pro Pro Leu Leu Gly Leu Glu Lys					
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<210> 5987

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<212> DNA

<213> Homo sapiens

<400> 5987

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<210> 5988
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 Trp Ile Lys Ala Arg Ser Gly Asp Asn Pro Val Tyr Ile Trp Gly His
 50 55 60
 Ser Leu Gly Thr Gly Val Ala Thr Ile Trp Cys Gly Ala Ser Val Ser
 65 70 75 80
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 85 90 95
 Arg Glu Glu Ala Lys Ser His Pro Phe Ser Val Ile Tyr Arg Tyr Phe
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 Pro Gly Phe Asp Trp Phe Phe Leu Asp Pro Ile Thr Ser Ser Gly Ile
 115 120 125
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 130 135 140
 Ile Leu His Ala Glu Asp Asp Pro Val Val Pro Phe Gln Leu Gly Arg
 145 150 155 160
 Lys Leu Tyr Ser Ile Ala Ala Pro Ala Arg Ser Phe Arg Asp Phe Lys
 165 170 175
 Val Gln Phe Val Pro Phe His Ser Asp Leu Gly Tyr Arg His Lys Tyr
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 <212> DNA
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<400> 5989

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<210> 5990
 <211> 260
 <212> PRT
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<400> 5990
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 35 40 45
 Val Asn Thr His Val Trp Thr Lys Ser Lys Phe Met Gly Met Ser Val
 50 55 60
 Gly Val Ser Met Ile Gly Glu Gly Val Leu Arg Leu Leu Glu His Gly
 65 70 75 80
 Glu Glu Tyr Val Phe Thr Leu Pro Ser Ala Tyr Ala Arg Ser Ile Leu
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 Thr Ile Pro Trp Val Glu Leu Gly Gly Lys Val Ser Ile Asn Cys Ala
 100 105 110
 Lys Thr Gly Tyr Ser Ala Thr Val Ile Phe His Thr Lys Pro Phe Tyr
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 Asn Thr Ile Val Cys Lys Ala His Gly Glu Trp Asn Gly Thr Leu Glu
 145 150 155 160
 Phe Thr Tyr Asn Asn Gly Glu Thr Lys Val Ile Asp Thr Thr Thr Leu
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 Pro Val Tyr Pro Lys Lys Ile Arg Pro Leu Glu Lys Gln Gly Pro Met
 180 185 190
 Glu Ser Arg Asn Leu Trp Arg Glu Val Thr Arg Tyr Leu Arg Leu Gly
 195 200 205
 Asp Ile Asp Ala Ala Thr Glu Gln Lys Arg His Leu Glu Glu Lys Gln
 210 215 220
 Arg Val Glu Glu Arg Lys Arg Glu Asn Leu Arg Thr Pro Trp Lys Pro
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<210> 5992

<211> 301

<212> PRT

<213> Homo sapiens

<400> 5992

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Ile	Pro	Leu	Leu	Asp	Asn	Val	Ile	Asn	Tyr	Ser	Phe	Pro	Ala	Lys	Gly

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<211> 7858

<212> DNA

<213> Homo sapiens

<400> 5993

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1020

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<212> PRT

<213> Homo sapiens

<400> 5994

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<212> DNA

<213> Homo sapiens

<400> 5995

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<213> Homo sapiens

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<211> 757

<212> PRT

<213> Homo sapiens

<400> 6000

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Lys	Asn	Ile	Phe	Ser	Val	Pro	Glu	Ile	Val	Arg	Glu	Thr	Gln	Asp	Leu
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Ile	Glu	Gln	Gly	Ala	Leu	Leu	Gln	Ala	His	Arg	Lys	Leu	Met	Asp	Leu
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Glu Leu Ala Pro Glu Val	Asp Val Gly Thr Leu	Glu Pro Leu Leu Ser
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Gln Thr Thr Leu Pro Ala	Ile Val Phe Gln Met	Phe Glu Gln Asn Leu
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Ala Gln Leu Tyr Lys Glu	Glu His Leu Arg Asn	Arg Gln His Pro His
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Cys Tyr Val Gln Tyr Met	Ile Ala Ile Ile Asn	Asn Cys Gln Thr Phe
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Lys Glu Ser Ile Val Ser	Leu Lys Arg Lys Tyr	Leu Lys Asn Glu Val
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Gly Ser Asn Ala Val Asp	Ile Ile Cys Val Thr	Val Glu Asp Tyr Phe
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Glu Ala His Arg Arg Val	Val Val Glu Tyr Leu	Arg Ala Val Met Gln
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Lys Met Val Arg Glu Ala	Glu Gln Arg Arg Phe	Leu Phe Arg Lys Leu
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Gln Thr Ile Met Glu Thr Leu Glu Gln Gly Pro Ala Gln Ala Ser Pro						
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<210> 6001

<211> 2490

<212> DNA

<213> Homo sapiens

<400> 6001

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<211> 263

<212> PRT

<213> Homo sapiens

<400> 6002

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<210> 6003

<211> 3107

<212> DNA

<213> Homo sapiens

<400> 6003

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<210> 6004

<211> 140

<212> PRT

<213> Homo sapiens

<400> 6004

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Pro	Ala	Val	Pro	Lys	Val	Ala	Pro	Gly	Thr	Met	Pro	Thr	Arg	Pro	Glu
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Ser	Pro	Arg	Gly	Glu	Arg	Gly	Ser	Gly	Pro	His	Ala	Val	Gln	Gly	Val
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 <211> 1735
 <212> DNA
 <213> Homo sapiens

<400> 6005
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<210> 6006

<211> 200

<212> PRT

<213> Homo sapiens

<400> 6006

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			20					25					30		
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		35					40					45			
Leu	Lys	Gly	Glu	Lys	Gly	Glu	Ser	Ala	Ser	Gln	Pro	Thr	Gly	Glu	Pro
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Gly	Ser	Ala	His	Ser	Glu	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Pro
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		115					120					125			
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		130				135					140				
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Arg	Gly	Val	Pro	Gly	Arg	Lys	Gly	Val	Lys	Gly	Gln	Lys	Gly	Glu	Pro
				165					170					175	
Gly	Pro	Pro	Gly	Leu	Asp	Gln	Pro	Cys	Pro	Val	Gly	Pro	Asp	Gly	Leu
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<210> 6007

<211> 693

<212> DNA

<213> Homo sapiens

<400> 6007

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<210> 6008

<211> 214

<212> PRT

<213> Homo sapiens

<400> 6008

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		20						25				30			
Gly	Lys	Met	Val	Lys	Lys	Val	Cys	Pro	Cys	Asn	Gln	Leu	Cys	Arg	Thr
		35				40					45				
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	50					55					60				
Ala	Gln	Pro	Pro	Ala	Met	Thr	Ser	Ser	Arg	Lys	Gly	Thr	Phe	Thr	Asp
65					70				75					80	
Asp	Leu	His	Lys	Leu	Val	Asp	Asn	Trp	Ala	Arg	Asp	Ala	Met	Asn	Leu
			85					90						95	
Ser	Gly	Arg	Arg	Gly	Ser	Lys	Gly	His	Met	Asn	Tyr	Glu	Gly	Pro	Gly
		100					105					110			
Met	Ala	Arg	Lys	Phe	Ser	Ala	Pro	Gly	Gln	Leu	Cys	Ile	Ser	Met	Thr
		115				120					125				
Ser	Asn	Leu	Gly	Gly	Ser	Ala	Pro	Ile	Ser	Ala	Ala	Ser	Ala	Thr	Ser
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<212> PRT

<213> Homo sapiens

<400> 6010

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Asp	Thr	Val	Tyr	Asp	Val	Val	Val	Ser	Gly	Gly	Gly	Leu	Val	Gly	Ala
		35					40					45			
Ala	Met	Ala	Cys	Ala	Leu	Gly	Tyr	Asp	Ile	His	Phe	His	Asp	Lys	Lys
	50					55					60				
Ile	Leu	Leu	Leu	Glu	Ala	Gly	Pro	Lys	Lys	Val	Leu	Glu	Lys	Leu	Ser
65				70						75				80	
Glu	Thr	Tyr	Ser	Asn	Arg	Val	Ser	Ser	Ile	Ser	Pro	Gly	Ser	Ala	Thr
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Leu	Leu	Ser	Ser	Phe	Gly	Ala	Trp	Asp	His	Ile	Cys	Asn	Met	Arg	Tyr
			100					105					110		
Arg	Ala	Phe	Arg	Arg	Met	Gln	Val	Trp	Asp	Ala	Cys	Ser	Glu	Ala	Leu
		115				120						125			
Ile	Met	Phe	Asp	Lys	Asp	Asn	Leu	Asp	Asp	Met	Gly	Tyr	Ile	Val	Glu
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Pro	Cys	Pro	Phe	Pro	Met	Ala	Asp	Ser	Ser	Pro	Trp	Val	His	Ile	Thr
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Leu	Gly	Asp	Gly	Ser	Thr	Phe	Gln	Thr	Lys	Leu	Leu	Ile	Gly	Ala	Asp
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Trp Val Asp Ala Lys Ser Arg Val Leu Phe Pro Leu Gly Leu Gly His
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Ala Ala Glu Tyr Val Arg Pro Arg Val Ala Leu Ile Gly Asp Ala Ala
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His Arg Val His Pro Leu Ala Gly Gln Gly Val Asn Met Gly Phe Gly
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Gln Arg His Asn Thr Ala Leu Leu Ala Ala Thr Asp Leu Leu Lys Arg
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<210> 6011

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<212> DNA

<213> Homo sapiens

<400> 6011

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<212> PRT

<213> Homo sapiens

<400> 6012

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			20					25					30		
Lys	Glu	Pro	Gly	Asp	Ser	Ala	Gln	Phe	Thr	Lys	Ala	Ile	Ala	Ile	Ile
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Phe	Pro	Phe	Leu	Tyr	Leu	Leu	Glu	Lys	Val	Glu	Cys	Thr	Pro	Ser	Gln
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Glu	His	Leu	Lys	His	Gln	Thr	Val	Tyr	Arg	Leu	Leu	Lys	Cys	Ala	Pro
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 <212> DNA
 <213> Homo sapiens

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<211> 182

<212> PRT

<213> Homo sapiens

<400> 6014

Arg	Gln	His	Asn	Lys	Asp	Lys	Pro	Phe	Lys	Cys	His	Asn	Cys	His	Arg
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Ala	Tyr	Thr	Asp	Ala	Ala	Ser	Leu	Glu	Val	His	Leu	Ser	Thr	His	Thr
			20					25				30			
Val	Lys	His	Ala	Lys	Val	Tyr	Thr	Cys	Thr	Ile	Cys	Ser	Arg	Ala	Tyr
		35					40				45				
Thr	Ser	Glu	Thr	Tyr	Leu	Met	Lys	His	Met	Arg	Lys	His	Asn	Pro	Pro
		50				55				60					
Asp	Leu	Gln	Gln	Gln	Val	Gln	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Val	Ala
65					70					75				80	
Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala
				85				90					95		
Gln	Ala	Gln	Ala	Gln	Ala	Ser	Gln	Ala	Ser	Gln	Gln	Gln	Gln	Gln	Gln

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      100      105      110
Gln Gln Gln Gln Gln Gln Gln Gln Gln Pro Pro Pro His Phe Gln Ser
      115      120      125
Pro Gly Ala Ala Pro Gln Gly Gly Gly Gly Asp Ser Asn Pro Asn
      130      135      140
Pro Pro Pro Gln Cys Ser Phe Asp Leu Thr Pro Tyr Lys Thr Ala Glu
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His His Lys Asp Ile Cys Leu Thr Val Thr Thr Ser Thr Ile Gln Val
      165      170      175
Glu His Leu Ala Ser Ser
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<210> 6015

<211> 612

<212> DNA

<213> Homo sapiens

<400> 6015

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tccgcagggtg cctcagccat tgcctaccct tttgcacaaa attaaaaaga aaagaaaaaa
480
gccagtgaga gaacagtcac acgataaagg cacagcacag cagttggttg tctcttttta
540
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acctggcatg gc
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<210> 6016

<211> 99

<212> PRT

<213> Homo sapiens

<400> 6016

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Pro Arg Ser Pro Glu Arg Leu Pro Ala Ser Gln Gly Ile Ser Arg Gly
20     25     30
Arg Cys Lys Leu Asn Asn Asn Ser Trp Ser Gly Leu Thr Cys Pro Thr
35     40     45
Leu Ser Met Ser Cys Asn Gln Asn Lys Leu Asp Ser Pro Gly Arg Ala

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50		55		60
Ser His Gly Ser Ser Leu Pro Phe Asn Gln Asp Ser Gln Lys Pro Ala				
65		70		75
Phe Tyr Asn Ile Phe Leu Lys Lys Ser His Ser Phe Gln Ser Leu Leu				80
	85		90	95
Gln Tyr Ile				

<210> 6017

<211> 2091

<212> DNA

<213> Homo sapiens

<400> 6017

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1080
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1140
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1200

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 1680
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 1980
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<210> 6018

<211> 537

<212> PRT

<213> Homo sapiens

<400> 6018

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Met	Glu	Lys	Ala	Gly	Lys	Arg	Leu	Pro	Ser	Pro	Ala	Leu	Trp	Trp	Val
			20					25					30		
Asn	Gly	Lys	Gly	Lys	Glu	Leu	Met	Trp	Asn	Phe	Arg	Glu	Leu	Ser	Glu
		35				40						45			
Asn	Ser	Gln	Gln	Ala	Ala	Asn	Val	Leu	Ser	Gly	Ala	Cys	Gly	Leu	Gln
	50				55					60					
Arg	Gly	Asp	Arg	Val	Ala	Val	Met	Leu	Pro	Arg	Val	Pro	Glu	Trp	Trp
65				70					75				80		
Leu	Val	Ile	Leu	Gly	Cys	Ile	Arg	Ala	Gly	Leu	Ile	Phe	Met	Pro	Gly
			85					90					95		
Thr	Ile	Gln	Met	Lys	Ser	Thr	Asp	Ile	Leu	Tyr	Arg	Leu	Gln	Met	Ser
		100					105					110			
Lys	Ala	Lys	Ala	Ile	Val	Ala	Gly	Asp	Glu	Val	Ile	Gln	Glu	Val	Asp
	115					120						125			
Thr	Val	Ala	Ser	Glu	Cys	Pro	Ser	Leu	Arg	Ile	Lys	Leu	Leu	Val	Ser

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<210> 6019
<211> 3002
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<212> DNA

<213> Homo sapiens

<400> 6019

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3002

<210> 6020

<211> 387

<212> PRT

<213> Homo sapiens

<400> 6020

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      20           25           30
Thr Gly Arg Asp Leu Ile Ala Tyr Glu Val Lys Ala Asn Gln Arg Asn
      35           40           45
Ile Glu Asp Ile Cys Ile Cys Cys Gly Ser Leu Gln Val His Thr Gln
      50           55           60
His Pro Leu Phe Glu Gly Gly Ile Cys Ala Pro Cys Lys Asp Lys Phe
      65           70           75           80
Leu Asp Ala Leu Phe Leu Tyr Asp Asp Asp Gly Tyr Gln Ser Tyr Cys
      85           90           95
Ser Ile Cys Cys Ser Gly Glu Thr Leu Leu Ile Cys Gly Asn Pro Asp
      100          105          110
Cys Thr Arg Cys Tyr Cys Phe Glu Cys Val Asp Ser Leu Val Gly Pro
      115          120          125
Gly Thr Ser Gly Lys Val His Ala Met Ser Asn Trp Val Cys Tyr Leu
      130          135          140
Cys Leu Pro Ser Ser Arg Ser Gly Leu Leu Gln Arg Arg Arg Lys Trp
      145          150          155          160
Arg Ser Gln Leu Lys Ala Phe Tyr Asp Arg Glu Ser Glu Asn Pro Leu
      165          170          175
Glu Met Phe Glu Thr Val Pro Val Trp Arg Arg Gln Pro Val Arg Val
      180          185          190
Leu Ser Leu Phe Glu Asp Ile Lys Lys Glu Leu Thr Ser Leu Gly Phe
      195          200          205
Leu Glu Ser Gly Ser Asp Pro Gly Gln Leu Lys His Val Val Asp Val
      210          215          220
Thr Asp Thr Val Arg Lys Asp Val Glu Glu Trp Gly Pro Phe Asp Leu
      225          230          235          240
Val Tyr Gly Ala Thr Ala Pro Leu Gly His Thr Cys Asp Arg Pro Pro
      245          250          255
Ser Trp Tyr Leu Phe Gln Phe His Arg Phe Leu Gln Tyr Ala Arg Pro
      260          265          270
Lys Pro Gly Ser Pro Arg Pro Phe Phe Trp Met Phe Val Asp Asn Leu
      275          280          285
Val Leu Asn Lys Glu Asp Leu Asp Val Ala Ser Arg Phe Leu Glu Met
      290          295          300
Glu Pro Val Thr Ile Pro Asp Val His Gly Gly Ser Leu Gln Asn Ala
      305          310          315          320
Val Arg Val Trp Ser Asn Ile Pro Ala Ile Arg Ser Ser Arg His Trp
      325          330          335
Ala Leu Val Ser Glu Glu Glu Leu Ser Leu Leu Ala Gln Asn Lys Gln
      340          345          350
Ser Ser Lys Leu Ala Ala Lys Trp Pro Thr Lys Leu Val Lys Asn Cys
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385

<210> 6021

<211> 3145

<212> DNA

<213> Homo sapiens

<400> 6021

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<210> 6022

<211> 708

<212> PRT

<213> Homo sapiens

<400> 6022

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			20					25					30		
Asp	Phe	Leu	Leu	His	Val	Ala	Leu	Thr	Lys	Arg	Ala	Asp	Pro	Ala	Glu
		35					40					45			
Leu	Arg	Thr	Ile	Phe	Leu	Lys	Tyr	Ala	Ser	Ile	Glu	Lys	Asn	Gly	Glu
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Phe	Phe	Met	Ser	Pro	Asn	Asp	Phe	Val	Thr	Arg	Tyr	Leu	Asn	Ile	Phe
65					70					75				80	
Gly	Glu	Ser	Gln	Pro	Asn	Pro	Lys	Thr	Val	Glu	Leu	Leu	Ser	Gly	Val
			85					90						95	
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Phe	Glu	Ser	Val	Leu	Cys	Ala	Pro	Asp	Ala	Leu	Phe	Met	Val	Ala	Phe
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(10) International Publication Number
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C07K 14/47, 16/18, G01N 33/566, C12Q 1/68, C12N
15/11, 15/62, A01K 67/027, A61K 38/00

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(21) International Application Number: PCT/US00/08621

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(22) International Filing Date: 31 March 2000 (31.03.2000)

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09/540,763 30 March 2000 (30.03.2000) US

(81) Designated States (*national*): AE, AL, AM, AT, AU, AZ,
BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK,
DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
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RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent
(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent
(AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GW, ML, MR, NE, SN, TD, TG).

(63) Related by continuation (CON) or continuation-in-part
(CIP) to earlier applications:
US 60/127,607 (CIP)
Filed on 31 March 1999 (31.03.1999)
US 60/127,636 (CIP)
Filed on 2 April 1999 (02.04.1999)
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US 09/540,763 (CIP)
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Published:

- With international search report.
- Before the expiration of the time limit for amending the
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amendments.

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(88) Date of publication of the international search report:
25 January 2001

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): SHIMKETS,

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: NUCLEIC ACIDS INCLUDING OPEN READING FRAMES ENCODING POLYPEPTIDES; "ORFX"

(57) Abstract: The present invention provides open reading frames encoding isolated polypeptides, as well as polynucleotides encoding ORFX and antibodies that immunospecifically bind to ORFX or any derivative, variant, mutant, or fragment of the ORFX polypeptides, polynucleotides or antibodies. The invention additionally provides methods in which the ORFX polypeptide, polynucleotide and antibody are used in detection and treatment of a broad range of pathological states, as well as to other uses.

WO 00/58473 A3

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/08621

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C07K14/47 C07K16/18 G01N33/566 C12Q1/68
C12N15/11 C12N15/62 A01K67/027 A61K38/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K G01N A01K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EMBASE, MEDLINE, CAB Data, PAJ, EPO-Internal, WPI Data, STRAND

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	COLE S.T.: "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence." NATURE, vol. 393, 11 June 1998 (1998-06-11), XP002144873 sequence	
A	LAMERDIN J.E.: "Sequence analysis of a 3.5 Mb contig in human 19p13.3 containing a serine protease gene cluster." EMEST DATABASE ENTRY, 8 February 1999 (1999-02-08), XP002144874 sequence	

☒ Further documents are listed in the continuation of box C.

☐ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

21 August 2000

Date of mailing of the international search report

23.11.00

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
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Fax: (+31-70) 340-3016

Authorized officer

Hix, R

INTERNATIONAL SEARCH REPORT

Internat' Application No
PCT/US 00/08621

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	<p>M.D. ADAMS ET AL.: "The genome sequence of <i>Drosophila melanogaster</i>." SCIENCE, vol. 287, 24 March 2000 (2000-03-24), pages 2185-2195, XP002144875 the whole document -----</p>	6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/08621

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 27 to 32 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

claims 1 to 32 partially

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claim : 1 to 32 partially

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 1, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

2. Claim : .

Inventions 2 to 3161

claims 1 to 32 partially :

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 2 to 3161, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

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<210> 6026

<211> 496

<212> PRT

<213> Homo sapiens

<400> 6026

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<210> 6027

<211> 305

<212> DNA

<213> Homo sapiens

<400> 6027

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<210> 6028

<211> 75

<212> PRT

<213> Homo sapiens

<400> 6028

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<212> DNA

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<211> 99

<212> PRT

<213> Homo sapiens

<400> 6030

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<211> 1316

<212> DNA

<213> Homo sapiens

<400> 6031

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<211> 321

<212> PRT

<213> Homo sapiens

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Asn	Pro	Tyr	Thr	Ile	Leu	Ser	Cys	Val	Ala	Lys	Ser	Thr	Cys	Ala	Ile
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Ala	Phe	Leu	Ser	Ala	Ile	Phe	Leu	Ala	Leu	Ala	Thr	Tyr	Gln	Ser	Leu
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Tyr	Pro	Leu	Thr	Leu	Phe	Val	Pro	Gly	Leu	Leu	Tyr	Leu	Leu	Gln	Arg
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Gln	Tyr	Ile	Pro	Val	Lys	Met	Lys	Ser	Lys	Ala	Phe	Trp	Ile	Phe	Ser
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Trp	Glu	Tyr	Ala	Met	Met	Tyr	Val	Gly	Ser	Leu	Val	Val	Ile	Ile	Cys
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Leu	Ser	Phe	Phe	Leu	Leu	Ser	Ser	Trp	Asp	Phe	Ile	Pro	Ala	Val	Tyr
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Cys	Val	Phe	Gln	Ile	Asn	Val	Phe	Phe	Tyr	Thr	Ile	Pro	Leu	Ala	Ile
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			210			215					220				
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Val	Leu	Trp	His	Leu	Trp	Ile	Tyr	Ala	Gly	Ser	Ala	Asn	Ser	Asn	Phe
			260				265					270			
Phe	Tyr	Ala	Ile	Thr	Leu	Thr	Phe	Asn	Val	Gly	Gln	Ile	Leu	Leu	Ile
			275				280					285			
Ser	Asp	Tyr	Phe	Tyr	Ala	Phe	Leu	Arg	Arg	Glu	Tyr	Tyr	Leu	Thr	His
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<211> 5157

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 6034

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His Ala Ile Pro Pro Thr Leu Ala Met Asn Pro Gln Ala Gln Ala Leu
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Ile Ala Ala Leu Gly Leu Leu Gln Lys Ala Val Glu Gly Leu Leu Asp
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Ala Thr Ser Gly Ala Asp Ala Asp Leu Leu Leu Arg Tyr Arg Glu Cys
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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 6038

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Thr	Glu	Glu	Glu	Glu	Gln	Ala	Leu	Glu	Leu	Leu	Ser	Glu	Met	Glu	Glu
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Asn	Glu	Pro	Tyr	Pro	Ala	Glu	Tyr	Glu	Val	Ile	Asn	Gln	Phe	Gln	Pro
		195					200					205			
Pro	Pro	Ala	Tyr	Thr	Pro										
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<210> 6039
 <211> 1130
 <212> DNA
 <213> Homo sapiens

<400> 6039
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 120
 ctgctgtggg agccattgtg ggcccagaat gtggtgcccg aggccgaagg ggaagacgat
 180
 ccggccggtg aggccaggc tgggaggcta cccctgctgc cctgcgcccg tgcctacgtg
 240
 agcccgcggg cggccttcta ccggcctctg gctccggagc tgcgggcacg ccagctggag
 300
 ctgggcgccc agcacgcgtt gctgctggac gctgctggcc aggtgttctc ctggggcggg
 360
 ggcaggcatg gacagctggg ccatgggacc ctggaggcag agctggagcc acggctgttg
 420
 gaggcgttgc agggcctagt catggctgag gtggccgcgg ggggctggca ttctgtgtgt
 480
 gtgagtgaga ctggggatat ttatatctgg ggctggaatg aatcagggca gctggccctg
 540
 cccaccagga acctggcaga ggatggagag actgtcgcaa gggaagccac agaactgaat
 600
 gaagatgggt ctcaggtgaa gagaacgggt ggggctgagg atggagcccc tgcccccttc
 660
 atagctgtcc agcccttccc ggcattactg gatctcccca tgggctcaga tgcagtcaag
 720
 gccagctgtg gatcccggca cacagctgtg gtgacacgaa caggggagct ctacacctgg
 780
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 840
 cgtgtggaat actttgtaga taagcaactc caagtaaagg ctgtcacctg tgggccgtgg
 900
 aacacctacg tgtatgctgt ggagaaaggg aagagctgac atgtgtacgt atatgtatat
 960
 gcaacacctg tgagaccccc attcaggtca aggaaaacca ttgcctgcac cccaagggcc
 1020
 ccatatttgc ccctcccat cacagtctg ccttcaccc tcaagcacgg tcctaaactt
 1080
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 1130

<210> 6040
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 6040
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20 25 30
 Gln Val Trp Ala Ala Glu Ser Ala Leu Arg Gly Glu Pro Leu Trp Ala
 35 40 45
 Gln Asn Val Val Pro Glu Ala Glu Gly Glu Asp Asp Pro Ala Gly Glu
 50 55 60
 Ala Gln Ala Gly Arg Leu Pro Leu Leu Pro Cys Ala Arg Ala Tyr Val
 65 70 75 80
 Ser Pro Arg Ala Pro Phe Tyr Arg Pro Leu Ala Pro Glu Leu Arg Ala
 85 90 95
 Arg Gln Leu Glu Leu Gly Ala Glu His Ala Leu Leu Leu Asp Ala Ala
 100 105 110
 Gly Gln Val Phe Ser Trp Gly Gly Arg His Gly Gln Leu Gly His
 115 120 125
 Gly Thr Leu Glu Ala Glu Leu Glu Pro Arg Leu Leu Glu Ala Leu Gln
 130 135 140
 Gly Leu Val Met Ala Glu Val Ala Ala Gly Gly Trp His Ser Val Cys
 145 150 155 160
 Val Ser Glu Thr Gly Asp Ile Tyr Ile Trp Gly Trp Asn Glu Ser Gly
 165 170 175
 Gln Leu Ala Leu Pro Thr Arg Asn Leu Ala Glu Asp Gly Glu Thr Val
 180 185 190
 Ala Arg Glu Ala Thr Glu Leu Asn Glu Asp Gly Ser Gln Val Lys Arg
 195 200 205
 Thr Gly Gly Ala Glu Asp Gly Ala Pro Ala Pro Phe Ile Ala Val Gln
 210 215 220
 Pro Phe Pro Ala Leu Leu Asp Leu Pro Met Gly Ser Asp Ala Val Lys
 225 230 235 240
 Ala Ser Cys Gly Ser Arg His Thr Ala Val Val Thr Arg Thr Gly Glu
 245 250 255
 Leu Tyr Thr Trp Gly Trp Gly Lys Tyr Gly Gln Leu Gly His Glu Asp
 260 265 270
 Thr Thr Ser Leu Asp Arg Pro Arg Arg Val Glu Tyr Phe Val Asp Lys
 275 280 285
 Gln Leu Gln Val Lys Ala Val Thr Cys Gly Pro Trp Asn Thr Tyr Val
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 Tyr Ala Val Glu Lys Gly Lys Ser
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<210> 6041

<211> 291

<212> DNA

<213> Homo sapiens

<400> 6041

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120

cggttgagc agcaaaagca gcagataatg gcagctttta actcccagac tgccgtgcag
180

ttccagcagt atgcagccca acagtatcca gggaactacg aacagcagca aattctcatc
240

cgccagttgc aggagcaaca ctatcagcag tacatgcagc agttgtatca c
291

<210> 6042
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 6042
 Thr Arg Glu Gly Glu Glu Arg Glu Arg Leu Gln Lys Glu Glu Glu Lys
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 Arg Arg Arg Glu Glu Glu Arg Leu Arg Arg Glu Glu Glu Glu Arg
 20 25 30
 Arg Arg Ile Glu Glu Glu Arg Leu Arg Leu Glu Gln Gln Lys Gln Gln
 35 40 45
 Ile Met Ala Ala Leu Asn Ser Gln Thr Ala Val Gln Phe Gln Gln Tyr
 50 55 60
 Ala Ala Gln Gln Tyr Pro Gly Asn Tyr Glu Gln Gln Gln Ile Leu Ile
 65 70 75 80
 Arg Gln Leu Gln Glu Gln His Tyr Gln Gln Tyr Met Gln Gln Leu Tyr
 85 90 95
 His

<210> 6043
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 6043
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 120
 ttcaagggtgt cttgtacaac ccactgggga aacaggatct gggaccggtg cgggcacatt
 180
 ctccctggccc agcacagggg cgggtgccacc cacattcggc cggggtcttg cctaatacat
 240
 gtttttggtaa acactcggtc agagcaccct ctgttttttc cagtcccgaa gctccccgca
 300
 ggaatccaca cccccgcccc acccctctcg ggacacggat tcaatgtccc tgggtgggtca
 360
 tctggccttt tcggcctgtg atgtgattcg agcgggtgcta tctttaacct cgggcagggg
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 558

<210> 6044
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 6044

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Cys Tyr Leu Ser Asn Val Asp Gly Gly Glu His Pro Cys Pro Arg Leu
      20           25           30
Lys Ile Ala Pro Leu Glu Ser His His Arg Pro Lys Arg Pro Asp Asp
      35           40           45
Pro Pro Gly Thr Leu Asn Pro Cys Pro Glu Arg Gly Gly Ala Gly Val
      50           55           60
Trp Ile Pro Ala Gly Ser Phe Gly Thr Gly Lys Asn Arg Gly Cys Ser
65           70           75           80
Asp Arg Val Phe Thr Lys Thr Cys Ile Arg Gln Asp Pro Gly Arg Met
      85           90           95
Trp Val Ala Pro Pro Leu Cys Trp Ala Arg Arg Met Cys Pro His Arg
      100          105          110
Ser Gln Ile Leu Phe Pro Gln Trp Val Val Gln Asp Thr Leu Asn Phe
      115          120          125
Cys Met Asn Trp Asp Ile Gln Asn Ser Leu Glu Gln Pro Pro Pro Ser
      130          135          140
Thr Leu Cys Leu Asp Ile Ser Tyr
145           150

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<210> 6045

<211> 1916

<212> DNA

<213> Homo sapiens

<400> 6045

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120
gtgttcacag acatcgacat cttcagagac ctgcaagaaa tatgcaggaa acagggagtt
180
gctgtgtata tccttctgga ccaggctctc ctctctcaat ttctggatat gtgcatggat
240
ctgaaagttc atcctgaaca ggaaaagtta atgacagttc ggactatcac aggaaatata
300
tactatgcaa ggtcaggaac taagattatt gggaaggttc acgaaaagtt cacgttgatt
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gatggcatcc gcgtggcaac aggtcctcac agttttacat ggacggatgg caaattaaac
420
agcagtaact tggtatttct gtctggccaa gtggttgaac actttgatct ggagttccga
480
atcctgtatg ccagtcctaa gcccatcagc cccaaactcc tgtctcactt ccagagcagc
540
aacaagtgtg atcacctcac caaccgaaaa ccacagtcca aggagctcac cctgggcaac
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ctgctgcgga tgcggctggc taggctgtca agtactccca ggaaggcgga cctggaccca
660
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720
agtgaggaag actacttcag cagccacagg gacgagctcc agagcagaaa ggccattgac
780

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gctgccactc aaacagagcc aggagaggag atgccagggc tgagtgtgag tgagggtggga
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 900
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 960
 aacattctct ttcctcgagg aactcaatct acagaagggt caccagtctc aaaaatgtct
 1020
 gtatcgagat cttccagttt gaagtcttcc tcctctgtgt cttccaagg ctctgtggca
 1080
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 1380
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 1440
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 1620
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 1680
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 1740
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 1800
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 1860
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 1916

<210> 6046

<211> 457

<212> PRT

<213> Homo sapiens

<400> 6046

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Pro	Tyr	Gly	Cys	Lys	Asp	Ala	Leu	Arg	Gln	Gln	Leu	Arg	Ser	Ala	Arg
			20					25					30		
Glu	Val	Ile	Ala	Val	Val	Met	Asp	Val	Phe	Thr	Asp	Ile	Asp	Ile	Phe
		35				40					45				
Arg	Asp	Leu	Gln	Glu	Ile	Cys	Arg	Lys	Gln	Gly	Val	Ala	Val	Tyr	Ile
	50					55				60					
Leu	Leu	Asp	Gln	Ala	Leu	Leu	Ser	Gln	Phe	Leu	Asp	Met	Cys	Met	Asp

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65          70          75          80
Leu Lys Val His Pro Glu Gln Glu Lys Leu Met Thr Val Arg Thr Ile
          85          90          95
Thr Gly Asn Ile Tyr Tyr Ala Arg Ser Gly Thr Lys Ile Ile Gly Lys
          100          105          110
Val His Glu Lys Phe Thr Leu Ile Asp Gly Ile Arg Val Ala Thr Gly
          115          120          125
Ser Tyr Ser Phe Thr Trp Thr Asp Gly Lys Leu Asn Ser Ser Asn Leu
          130          135          140
Val Ile Leu Ser Gly Gln Val Val Glu His Phe Asp Leu Glu Phe Arg
145          150          155          160
Ile Leu Tyr Ala Gln Ser Lys Pro Ile Ser Pro Lys Leu Leu Ser His
          165          170          175
Phe Gln Ser Ser Asn Lys Phe Asp His Leu Thr Asn Arg Lys Pro Gln
          180          185          190
Ser Lys Glu Leu Thr Leu Gly Asn Leu Leu Arg Met Arg Leu Ala Arg
          195          200          205
Leu Ser Ser Thr Pro Arg Lys Ala Asp Leu Asp Pro Glu Met Pro Ala
210          215          220
Glu Gly Lys Ala Glu Arg Lys Pro His Asp Cys Glu Ser Ser Thr Val
225          230          235          240
Ser Glu Glu Asp Tyr Phe Ser Ser His Arg Asp Glu Leu Gln Ser Arg
          245          250          255
Lys Ala Ile Asp Ala Ala Thr Gln Thr Glu Pro Gly Glu Glu Met Pro
          260          265          270
Gly Leu Ser Val Ser Glu Val Gly Thr Gln Thr Ser Ile Thr Thr Ala
          275          280          285
Cys Ala Gly Thr Gln Thr Ala Val Ile Thr Arg Ile Ala Ser Ser Gln
290          295          300
Thr Thr Ile Trp Ser Arg Ser Thr Thr Thr Gln Thr Asp Met Asp Glu
305          310          315          320
Asn Ile Leu Phe Pro Arg Gly Thr Gln Ser Thr Glu Gly Ser Pro Val
          325          330          335
Ser Lys Met Ser Val Ser Arg Ser Ser Leu Lys Ser Ser Ser Ser
          340          345          350
Val Ser Ser Gln Gly Ser Val Ala Ser Ser Thr Gly Ser Pro Ala Ser
          355          360          365
Ile Arg Thr Thr Asp Phe His Asn Pro Gly Tyr Pro Lys Tyr Leu Gly
370          375          380
Thr Pro His Leu Glu Leu Tyr Leu Ser Asp Ser Leu Arg Asn Leu Asn
385          390          395          400
Lys Glu Arg Gln Phe His Phe Ala Gly Ile Arg Ser Arg Leu Asn His
          405          410          415
Met Leu Ala Met Leu Ser Arg Arg Thr Leu Phe Thr Glu Asn His Leu
          420          425          430
Gly Leu His Ser Gly Asn Phe Ser Arg Val Asn Leu Leu Ala Val Arg
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Asp Val Ala Leu Tyr Pro Ser Tyr Gln
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<210> 6047

<211> 773

<212> DNA

<213> Homo sapiens

<400> 6047

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 120
 gatgggaaat gggggatctc atcgcttgtg agtagaggag actttggggg gaaagtgatg
 180
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 240
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 aatgggtgcaa acagctcttc tccagtgtgg tccccgtgct gctggggggac ccagaggagg
 360
 agccgggtgg gcggcagctc ctggacctca attgcttttt gtccgacatc tcggacactc
 420
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 480
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 773

<210> 6048

<211> 129

<212> PRT

<213> Homo sapiens

<400> 6048

Met Val Lys Arg Val Ser Glu Met Ser Asp Lys Lys Gln Leu Arg Ser
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 20 25 30
 Gly Thr Thr Leu Glu Lys Ser Cys Leu His His Cys Ser Gly Gly Gly
 35 40 45
 His Leu Pro Ser Ala Cys Leu Gly Ala Arg Arg Ser Ser Ser Leu Leu
 50 55 60
 Gly Tyr Gly Ser Cys Arg Asp Thr Gln Ser Trp Thr Pro Asp Pro Leu
 65 70 75 80
 Pro His Pro Pro Ser Leu Ser Pro Gln Ser Leu Leu Tyr Ser Gln Ala
 85 90 95
 Met Arg Ser Pro Ile Ser His Gln Glu Leu Thr Arg Pro Leu Gly Lys
 100 105 110
 Glu Ala Ala Arg Arg Arg Cys Gly His Thr Val Ala Leu Ser Ala Arg
 115 120 125
 Asp

<210> 6049

<211> 479

<212> DNA

<213> Homo sapiens

<400> 6049

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120
agcagcagta gcagcagtaa cagtagtaac gagagagaag actttgattc cacctcttcc
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360
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479

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<210> 6050

<211> 159

<212> PRT

<213> Homo sapiens

<400> 6050

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20     25     30
Ala Lys Lys Arg Lys Leu Asn Ser Ser Ser Ser Ser Ser Asn Ser
35     40     45
Ser Asn Glu Arg Glu Asp Phe Asp Ser Thr Ser Ser Ser Ser Ser Thr
50     55     60
Pro Pro Leu Gln Pro Arg Asp Ser Ala Ser Pro Ser Thr Ser Ser Phe
65     70     75     80
Cys Leu Gly Val Ser Val Ala Ala Ser Ser His Val Pro Ile Gln Lys
85     90     95
Lys Leu Arg Phe Glu Asp Thr Leu Glu Phe Val Gly Phe Asp Ala Lys
100    105    110
Met Ala Glu Glu Ser Ser Ser Ser Ser Ser Ser Ser Pro Thr Ala
115    120    125
Ala Thr Ser Gln Glu Gln Gln Leu Lys Asn Lys Ser Ile Leu Ile Ser
130    135    140
Ser Val Gly Ser Val His His Ala Asp Gly Leu Ala Glu Ser Ser
145    150    155

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<210> 6051

<211> 2404

<212> DNA

<213> Homo sapiens

<400> 6051

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120
ttacagcagc gtcgatttaa tggctcagac ggagggggtt catgggtctcc tatggatgat
180
gaacttcttg cacagccaca gggttatgaaa ttattagatt cactccgaga gcaatatacc
240
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300
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360
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420
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1140
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1440
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1560

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 1620
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 1680
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 1740
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 1800
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 1860
 atggtgctaa taagagtagg aattctctct attaaaaaga aaaaaaaaaag ttgcccttcc
 1920
 tccacagggtg atttagtaaa tttagacagt agttaaactc ttgttagtag acagtgggtg
 1980
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 2280
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 2404

<210> 6052

<211> 518

<212> PRT

<213> Homo sapiens

<400> 6052

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			20					25					30		
Thr	Gly	His	Glu	Leu	Leu	Ser	Glu	Leu	Gln	Gln	Arg	Arg	Phe	Asn	Gly
		35					40					45			
Ser	Asp	Gly	Gly	Val	Ser	Trp	Ser	Pro	Met	Asp	Asp	Glu	Leu	Leu	Ala
	50					55					60				
Gln	Pro	Gln	Val	Met	Lys	Leu	Leu	Asp	Ser	Leu	Arg	Glu	Gln	Tyr	Thr
65					70					75				80	
Arg	Tyr	Gln	Glu	Val	Cys	Arg	Gln	Arg	Ser	Lys	Arg	Thr	Gln	Leu	Glu
				85					90					95	
Glu	Ile	Gln	Gln	Lys	Val	Met	Gln	Val	Val	Asn	Trp	Leu	Glu	Gly	Pro
			100					105					110		
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<211> 3257

<212> DNA

<213> Homo sapiens

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<211> 382

<212> PRT

<213> Homo sapiens

<400> 6054

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Pro	Leu	Glu	Glu	Ser	Gly	Ser	Arg	Pro	Pro	Ser	Thr	Gln	Glu	Thr	Ser
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 <212> DNA
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<213> Homo sapiens

<400> 6056

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65				70					75					80	
Thr	Glu	Ala	Leu	Cys	Trp	Ala	Glu	Gly	Gln	Arg	Leu	Phe	Ser	Ala	Gly
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Val Ser Lys Arg Lys Cys Ile Val Trp Gly Val Ala Phe Leu Ser Asp
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Gly Thr Ile Ile Ser Val Asp Ser Ala Gly Lys Val Gln Phe Trp Asp
225          230          235          240
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<212> DNA

<213> Homo sapiens

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<211> 500

<212> PRT

<213> Homo sapiens

<400> 6058

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225          230          235          240
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<211> 313

<212> PRT

<213> Homo sapiens

<400> 6060

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<211> 1582

<212> DNA

<213> Homo sapiens

<400> 6061

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<211> 226

<212> PRT

<213> Homo sapiens

<400> 6062

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 180 185 190
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<211> 2286

<212> DNA

<213> Homo sapiens

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<211> 233

<212> PRT

<213> Homo sapiens

<400> 6064

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Pro	Val	Arg	Cys	Ala	Gly	Asp	Trp	Leu	Pro	Arg	Gly	Leu	Gly	Trp	Gly
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<210> 6065

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 6065

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<210> 6066

<211> 80

<212> PRT

<213> Homo sapiens

<400> 6066

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			20					25					30		
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		35					40				45				
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	50				55			60							
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<210> 6067

<211> 406

<212> DNA

<213> Homo sapiens

<400> 6067

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<210> 6068

<211> 117

<212> PRT

<213> Homo sapiens

<400> 6068

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35     40     45
Ser Arg Ser Ser Glu Pro Pro Ala Cys Pro Arg His Trp Pro Cys Pro
50     55     60
Pro Gly Leu Pro Phe Gly Gln Gly Ala Val Ala Arg Ala Ala Pro Cys
65     70     75     80
Pro Ala Tyr Ser His Ser Ala Val Gly Arg Pro Pro Leu Pro Arg Lys
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<210> 6069

<211> 456

<212> DNA

<213> Homo sapiens

<400> 6069

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180

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<210> 6070

<211> 148

<212> PRT

<213> Homo sapiens

<400> 6070

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		20						25					30		
His	Arg	Tyr	His	Arg	Lys	Glu	Asn	Leu	Glu	Tyr	Cys	Ile	Met	Val	Ile
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	50					55					60				
Gln	His	Leu	Arg	Lys	Gly	Lys	Ala	Thr	Arg	Val	Gly	Gly	Glu	Pro	Gly
65					70					75				80	
Ile	Thr	Arg	Ala	Val	Met	Ser	Lys	Ile	Gln	Val	Glu	Ser	Ser	Gly	Ala
				85					90					95	
Arg	Pro	Ser	Thr	Leu	Ser	Arg	Ala	Leu	Gln	Ala	Ser	Gly	Thr	Cys	Arg
			100					105					110		
Pro	Leu	Cys	Gly	Phe	Arg	Leu	Leu	Thr	Thr	Leu	Pro	Ser	Pro	Pro	Leu
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<212> DNA

<213> Homo sapiens

<400> 6071

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<211> 76

<212> PRT

<213> Homo sapiens

<400> 6072

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Ala	Glu	Ala	Gly	Gly	Ser	Phe	Glu	Val	Arg	Ser	Ser	Arg	Pro	Ala	Trp
			20					25					30		
Pro	Thr	Trp	Arg	Asn	Pro	Ile	Ser	Thr	Lys	Asn	Thr	Lys	Ile	Asn	Lys
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<211> 387

<212> DNA

<213> Homo sapiens

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<211> 69

<212> PRT

<213> Homo sapiens

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		35					40					45			
Asn	Asp	Met	Ala	Leu	Asp	Ala	Phe	Asp	Leu	Asp	Arg	Met	Lys	Gln	Glu
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<210> 6075

<211> 4668

<212> DNA

<213> Homo sapiens

<400> 6075

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<211> 601

<212> PRT

<213> Homo sapiens

<400> 6076

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			20					25						30	
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			115				120					125			
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Gln	Gly	Val	Ala	His	Asn	Val	Lys	Ala	Met	Val	Leu	Glu	Leu	Lys	Gln
					150					155					160
Ser	Glu	Glu	Asp	Ala	Arg	Lys	Asn	Phe	Gln	Leu	Glu	Glu	Glu	Glu	Gln

165															170					175				
Asn	Glu	Ala	Lys	Leu	Lys	Glu	Lys	Gln	Ile	Gln	Arg	Thr	Lys	Arg	Gly									
180															185					190				
Leu	Glu	Ile	Leu	Ala	Lys	Arg	Ala	Ala	Glu	Thr	Val	Val	Asp	Pro	Glu									
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Met	Thr	Pro	Tyr	Leu	Asp	Ile	Ala	Asn	Gln	Thr	Gly	Arg	Ser	Ile	Arg									
210															215					220				
Ile	Pro	Pro	Ser	Glu	Arg	Lys	Ala	Leu	Met	Leu	Ala	Met	Gly	Tyr	His									
225															230					235				
Glu	Lys	Gly	Arg	Ala	Phe	Leu	Lys	Arg	Lys	Glu	Tyr	Gly	Ile	Ala	Leu									
245															250					255				
Pro	Cys	Leu	Leu	Asp	Ala	Asp	Lys	Tyr	Phe	Cys	Glu	Cys	Cys	Arg	Glu									
260															265					270				
Leu	Leu	Asp	Thr	Val	Asp	Asn	Tyr	Ala	Val	Leu	Gln	Leu	Asp	Ile	Val									
275															280					285				
Trp	Cys	Tyr	Phe	Arg	Leu	Glu	Gln	Leu	Glu	Cys	Leu	Asp	Asp	Ala	Glu									
290															295					300				
Lys	Lys	Leu	Asn	Leu	Ala	Gln	Lys	Cys	Phe	Lys	Asn	Cys	Tyr	Gly	Glu									
305															310					315				
Asn	His	Gln	Arg	Leu	Val	His	Ile	Lys	Gly	Asn	Cys	Gly	Lys	Glu	Lys									
325															330					335				
Val	Leu	Phe	Leu	Arg	Leu	Tyr	Leu	Leu	Gln	Gly	Ile	Arg	Asn	Tyr	His									
340															345					350				
Ser	Gly	Asn	Asp	Val	Glu	Ala	Tyr	Glu	Tyr	Leu	Asn	Arg	His	Val	Ser									
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Ser	Leu	Lys	Ser	Tyr	Ile	Leu	Ile	His	Gln	Lys	Trp	Thr	Ile	Cys	Cys									
370															375					380				
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385															390					395				
Asp	Gly	Asn	Val	Asp	His	Ala	Ala	Thr	His	Ile	Thr	Asn	Arg	Arg	Glu									
405															410					415				
Glu	Leu	Ala	Gln	Ile	Arg	Lys	Glu	Glu	Lys	Glu	Lys	Lys	Arg	Arg	Arg									
420															425					430				
Leu	Glu	Asn	Ile	Arg	Phe	Leu	Lys	Gly	Met	Gly	Tyr	Ser	Thr	His	Ala									
435															440					445				
Ala	Gln	Gln	Ile	Leu	Leu	Ser	Asn	Pro	Gln	Met	Trp	Trp	Leu	Asn	Asp									
450															455					460				
Ser	Asn	Pro	Glu	Thr	Asp	Asn	Arg	Gln	Glu	Ser	Pro	Ser	Gln	Glu	Asn									
465															470					475				
Ile	Asp	Arg	Leu	Val	Tyr	Met	Gly	Phe	Asp	Ala	Leu	Val	Ala	Glu	Ala									
485															490					495				
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500															505					510				
Ala	His	Asn	Gly	Gly	Ser	Leu	Pro	Pro	Glu	Leu	Pro	Leu	Ser	Pro	Glu									
515															520					525				
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530															535					540				
Ser	Ser	Ala	Ser	Thr	Asp	Glu	Asp	Met	Glu	Thr	Glu	Ala	Val	Asn	Glu									
545															550					555				
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565															570					575				
Leu	Glu	Asp	Glu	Glu	Ile	Ile	Ile	Ala	Glu	Tyr	Leu	Ser	Tyr	Val	Glu									
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595

600

<210> 6077

<211> 2093

<212> DNA

<213> Homo sapiens

<400> 6077

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120
ccgggggttg ggccgcacat ttacgtgcgc gaagcggagg accgggagct ggtgacgatg
180
gcggggccgc agcccctggc gctgcaactg gaacagttgt tgaaccgcg accaagcgag
240
gcggaccctg aagcggaccc cgaggaagcc actgctgcc a ggtgattga caggtttgat
300
gaaggggaag atggggaagg tgatttcta gtagtgggta gcattagaaa actggcatca
360
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420
aatgaagacc attgggagca gactctgcc ggatcgctg atgaggaaat atctgatgag
480
gaaggtctg gagatgaaga ttcagaggga ctgggtctgg aggaatatga tgaggacgac
540
ctgggtgctg ctgaggaaca ggagtgtggt gatcaggag agcaagaaga cgagaagcca
600
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660
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720
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780
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840
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900
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960
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1020
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1080
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1140
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1200
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1260
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1320
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1380

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 1560
 ttttaccacc agctccttcg agaactcata gaacggaaga ccagctcctt ggatcccaac
 1620
 gatcaggtgg ccatgggaag gcagtggctt gcaatccaga agttacgaag caaaatccac
 1680
 aaaaaagtag ataggaaagc cagcaaaggc aggaaacttc ggtttcatgt ccttagcaag
 1740
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 1800
 ctgtaccgct ctcttttttg ccagctccac cctcccgacg aaggccacgg ggattgacat
 1860
 cgcccacctc cgacaccag tgggcgccct ggctggtgcg gctgctgggc cagatggagg
 1920
 aaaccagtga ctttatgggg ctgagctagt agggaagccc ctggaaagat gctgcgttcc
 1980
 gaacctgtgc ctaatacacg caagggcgct gtcccgcca accccgcctt taaacgccac
 2040
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 2093

<210> 6078

<211> 213

<212> PRT

<213> Homo sapiens

<400> 6078

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			20					25					30		
Ser	Gly	Arg	Glu	Gly	Ala	Ser	Gly	Pro	Gly	Val	Gly	Pro	His	Ile	Tyr
		35				40					45				
Val	Arg	Glu	Ala	Glu	Asp	Arg	Glu	Leu	Val	Thr	Met	Ala	Gly	Pro	Gln
	50					55				60					
Pro	Leu	Ala	Leu	Gln	Leu	Glu	Gln	Leu	Leu	Asn	Pro	Arg	Pro	Ser	Glu
65				70						75				80	
Ala	Asp	Pro	Glu	Ala	Asp	Pro	Glu	Glu	Ala	Thr	Ala	Ala	Arg	Val	Ile
			85						90					95	
Asp	Arg	Phe	Asp	Glu	Gly	Glu	Asp	Gly	Glu	Gly	Asp	Phe	Leu	Val	Val
		100						105					110		
Gly	Ser	Ile	Arg	Lys	Leu	Ala	Ser	Ala	Ser	Leu	Leu	Asp	Thr	Asp	Lys
		115				120						125			
Arg	Tyr	Cys	Gly	Lys	Thr	Thr	Ser	Arg	Lys	Ala	Trp	Asn	Glu	Asp	His
	130				135					140					
Trp	Glu	Gln	Thr	Leu	Pro	Gly	Ser	Ser	Asp	Glu	Glu	Ile	Ser	Asp	Glu
145				150						155				160	
Glu	Gly	Ser	Gly	Asp	Glu	Asp	Ser	Glu	Gly	Leu	Gly	Leu	Glu	Glu	Tyr
			165						170					175	
Asp	Glu	Asp	Asp	Leu	Gly	Ala	Ala	Glu	Glu	Gln	Glu	Cys	Gly	Asp	Gln

	180		185		190										
Gly	Glu	Gln	Glu	Asp	Glu	Lys	Pro	Leu	Cys	Lys	Asn	Thr	Gly	Leu	Gln
	195		200		205										
Cys	Pro	Glu	Tyr	Gln											
	210														

<210> 6079

<211> 651

<212> DNA

<213> Homo sapiens

<400> 6079

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120
catgcgcagc ggggcccgtgg gtgtacgcgg cgcagcgcgg cagtcctgat ggcccggcat
180
gggttaccgc tgctgccct gctgtcgctc ctggtcggcg cgtggctcaa gctaggaaat
240
ggacaggcta ctagcatggt ccaactgcag ggtgggagat tcctgatggg aacaaattct
300
ccagacagca gagatggtga agggcctgtg cgggaggcga cagtgaacc ctttgccatc
360
gacatatttc ctgtcaccaa caaagatttc agggattttg tcaggagaaa aaagtatcgg
420
acagaagctg agatgtttgg atggagcttt gtctttgagg actttgtctc tgatgagctg
480
agaaacaaag ccaccagcc aatgaagtct gtactctggt ggcttcagtg ggaaaaggca
540
ttttggaggc agcctgcagg tcctggctct ggcatccgag agagactgga gcaccagtg
600
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651

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<210> 6080

<211> 162

<212> PRT

<213> Homo sapiens

<400> 6080

Leu	Met	Ala	Arg	His	Gly	Leu	Pro	Leu	Leu	Pro	Leu	Leu	Ser	Leu	Leu
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Val	Gly	Ala	Trp	Leu	Lys	Leu	Gly	Asn	Gly	Gln	Ala	Thr	Ser	Met	Val
			20					25						30	
Gln	Leu	Gln	Gly	Gly	Arg	Phe	Leu	Met	Gly	Thr	Asn	Ser	Pro	Asp	Ser
			35				40					45			
Arg	Asp	Gly	Glu	Gly	Pro	Val	Arg	Glu	Ala	Thr	Val	Lys	Pro	Phe	Ala
			50			55					60				
Ile	Asp	Ile	Phe	Pro	Val	Thr	Asn	Lys	Asp	Phe	Arg	Asp	Phe	Val	Arg
65					70					75				80	
Glu	Lys	Lys	Tyr	Arg	Thr	Glu	Ala	Glu	Met	Phe	Gly	Trp	Ser	Phe	Val
			85					90						95	
Phe	Glu	Asp	Phe	Val	Ser	Asp	Glu	Leu	Arg	Asn	Lys	Ala	Thr	Gln	Pro

	100		105		110										
Met	Lys	Ser	Val	Leu	Trp	Trp	Leu	Pro	Val	Glu	Lys	Ala	Phe	Trp	Arg
	115						120					125			
Gln	Pro	Ala	Gly	Pro	Gly	Ser	Gly	Ile	Arg	Glu	Arg	Leu	Glu	His	Pro
	130					135					140				
Val	Leu	His	Val	Ser	Trp	Asn	Asp	Ala	Arg	Ala	Tyr	Cys	Ala	Trp	Arg
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Gly	Lys														

<210> 6081
 <211> 655
 <212> DNA
 <213> Homo sapiens

<400> 6081
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 120
 ggaccagctg ttataacatt gttactagat gaatgtccat tgcccactaa agatgcactc
 180
 cagaaattga ctgaaattct caatttaa at ggagaagtag cttgccagga ctcaagccat
 240
 cctgccaaac acaggaacac atctgcagtc ctaggctgct tggccgagaa actagcaggt
 300
 cctgcaagta taggtttact tagcccagga atactggaat acttgctaca gtgtctgaag
 360
 ttacagtccc accccacagt catgcttttt gcacttatcg cactggaaaa gtttgcacag
 420
 acaagtga aaataattgac tttttctgaa tccagtatta gtgaccggct tgtcacattg
 480
 gagtcctggg ctaatgatcc tgattatctg aaacgtcaag ttggtttctg tgcccagtg
 540
 agcttagaca atctcttttt aaaagaaggt agacagctga cctatgagaa agtgaacttg
 600
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 655

<210> 6082
 <211> 218
 <212> PRT
 <213> Homo sapiens

Asp	Asn	Asp	Gln	Glu	Pro	Pro	Tyr	Ser	Met	Ile	Thr	Leu	His	Glu	Met
1			5					10					15		
Ala	Glu	Thr	Asp	Glu	Gly	Trp	Leu	Asp	Val	Val	Gln	Ser	Leu	Ile	Arg
		20					25					30			
Val	Ile	Pro	Leu	Glu	Asp	Pro	Leu	Gly	Pro	Ala	Val	Ile	Thr	Leu	Leu
	35					40					45				
Leu	Asp	Glu	Cys	Pro	Leu	Pro	Thr	Lys	Asp	Ala	Leu	Gln	Lys	Leu	Thr
	50				55				60						
Glu	Ile	Leu	Asn	Leu	Asn	Gly	Glu	Val	Ala	Cys	Gln	Asp	Ser	Ser	His

```

65          70          75          80
Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu Ala Glu
          85          90          95
Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly Ile Leu
          100         105         110
Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr Val Met
          115         120         125
Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser Glu Asn
          130         135         140
Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val Thr Leu
          145         150         155         160
Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val Gly Phe
          165         170         175
Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly Arg Gln
          180         185         190
Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met Leu Asn
          195         200         205
Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile
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<210> 6083

<211> 358

<212> DNA

<213> Homo sapiens

<400> 6083

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120
aatgaaaggc taacagctttt acaagagaag ctgatcgtcg aagggcatct aaccaaagcg
180
gtagaagaaa caaagctttc aaaagaaaat cagacaagag caaaagaatc tgatttttca
240
gatactctga gtccaagcaa ggaaaaaagc agtgacgaca ctacagacgc ccaaattggat
300
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358

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<210> 6084

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6084

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Met Glu Glu Lys Glu Gln Glu Leu Gln Ala Lys Ile Glu Ala Leu Gln
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Ala Asp Asn Asp Phe Thr Asn Glu Arg Leu Thr Ala Leu Gln Glu Lys
20     25     30
Leu Ile Val Glu Gly His Leu Thr Lys Ala Val Glu Thr Lys Leu
35     40     45
Ser Lys Glu Asn Gln Thr Arg Ala Lys Glu Ser Asp Phe Ser Asp Thr
50     55     60
Leu Ser Pro Ser Lys Glu Lys Ser Ser Asp Asp Thr Thr Asp Ala Gln

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65		70		75		80									
Met	Asp	Glu	Gln	Asp	Leu	Asn	Glu	Pro	Leu	Ala	Lys	Val	Ser	Leu	Leu
			85				90							95	
Lys	Asp	Asp	Leu	Gln											
			100												

<210> 6085

<211> 2307

<212> DNA

<213> Homo sapiens

<400> 6085

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120
ggttacgaaa cagtgggttg ccctggtgat gttctttaca tcccaatgta ctgggtggcat
180
cacatagagt cattactaaa tgggggggatt accatcactg tgaacttctg gtataagggg
240
gctcccaccc ctaagagaat tgaatatact ctcaaagctc atcagaaaagt ggccataatg
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480
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600
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660
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720
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840
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1140
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1200
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1260

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 1380
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 aagtactgcc tgacctatcc taagctttta cacttggatt ttagccatca tatgttggcc
 1500
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 1560
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 1860
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 2160
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 2280
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 2307

<210> 6086

<211> 84

<212> PRT

<213> Homo sapiens

<400> 6086

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Arg	Gly	Ala	Ser	Leu	Cys	Val	Phe	Val	Cys	Val	Cys	Leu	Cys	Val	Arg
			20					25					30		
Ile	Thr	Leu	Gly	Val	Gln	Ala	Ser	Gly	Cys	Val	Cys	Val	Cys	Ala	Cys
			35			40					45				
Val	Cys	Val	Cys	Val	Ser	Val	Cys	Val	Cys	Val	Cys	Val	His	Thr	Gly
	50				55					60					
Gln	Pro	Pro	Tyr	Leu	Pro	Arg	Phe	Ser	Thr	Ala	Tyr	Leu	Phe	Gln	Trp
65				70					75					80	
Asp	Ser	Thr	Val												

<210> 6087

<211> 1506

<212> DNA

<213> Homo sapiens

<400> 6087

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180
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300
atgcacccgc tgcccgggac ccagctgctc gacatggctg gaggcacagg tgacattgctg
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420
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<211> 326

<212> PRT

<213> Homo sapiens

<400> 6088

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<211> 4211

<212> DNA

<213> Homo sapiens

<400> 6089

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<213> Homo sapiens

<400> 6090

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5272

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<212> DNA

<213> Homo sapiens

<400> 6091

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Val Thr Arg Gln Val Pro Ser Pro Pro Ser Gly Phe Arg Leu Pro Ser
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<211> 136

<212> PRT

<213> Homo sapiens

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<210> 6096
 <211> 97
 <212> PRT
 <213> Homo sapiens

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<400> 6096
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Thr Cys Ala Ile Cys Arg Val Gln Val Met Val Val Trp Gly Glu Cys
50     55     60
Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
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<210> 6097
 <211> 2404

<212> DNA

<213> Homo sapiens

<400> 6097

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<210> 6098

<211> 631

<212> PRT

<213> Homo sapiens

<400> 6098

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His	Gln	Ile	Pro	Ala	Tyr	Leu	Val	Xaa	Xaa	Gly	Pro	Cys	Ala	Xaa	Gly
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Phe Tyr Pro Leu Ser Leu Leu Glu Thr Gly Ser Asp Leu Leu Leu Phe
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<210> 6099

<211> 3957

<212> DNA

<213> Homo sapiens

<400> 6099

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<211> 1102

<212> PRT

<213> Homo sapiens

<400> 6100

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Ala	Ser	Ser	Ser	Gln	Phe	Gln	Gly	Leu	Pro	Ser	Arg	Ser	Ala	Ile	Phe
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Gln	Gln	Gln	Pro	Glu	Asn	Cys	Ser	Ser	Pro	Pro	Asn	Val	Ala	Leu	Thr
				725					730					735	
Cys	Leu	Gly	Met	Gln	Gln	Pro	Ala	Gln	Ser	Gln	Gln	Val	Thr	Ile	Gln
		740						745					750		
Val	Gln	Glu	Pro	Val	Asp	Met	Leu	Ser	Asn	Met	Pro	Gly	Thr	Ala	Ala
		755					760					765			
Gly	Ser	Ser	Gly	Arg	Gly	Ile	Ser	Ile	Ser	Pro	Ser	Ala	Gly	Gln	Met
	770					775					780				
Gln	Met	Gln	His	Arg	Thr	Asn	Leu	Met	Ala	Thr	Leu	Ser	Tyr	Gly	His
785					790						795				800
Arg	Pro	Leu	Ser	Lys	Gln	Leu	Ser	Ala	Asp	Ser	Ala	Glu	Ala	His	Ser
				805					810					815	
Leu	Asn	Val	Asn	Arg	Phe	Ser	Pro	Ala	Asn	Tyr	Asp	Gln	Ala	His	Leu
			820					825					830		
His	Pro														

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          900          905          910
Gly Leu Leu Ser Pro Arg His Ser Leu Thr Gly His Ser Asp Ile Arg
          915          920          925
Leu Pro Pro Thr Glu Phe Ala Gln Leu Ile Lys Arg Gln Gln Gln Gln
          930          935          940
Arg Gln Gln Gln Gln Gln Gln Gln Gln Gln Glu Tyr Gln Glu Leu
945          950          955          960
Phe Arg His Met Asn Gln Gly Asp Ala Gly Ser Leu Ala Pro Ser Leu
          965          970          975
Gly Gly Gln Ser Met Thr Glu Arg Gln Ala Leu Ser Tyr Gln Asn Ala
          980          985          990
Asp Ser Tyr His His Thr Ile Gln Asn Ser Asp Asp Ala Tyr Val Gln
          995          1000          1005
Leu Asp Asn Leu Pro Gly Met Ser Leu Val Ala Gly Lys Ala Leu Ser
          1010          1015          1020
Ser Ala Arg Met Ser Asp Ala Val Leu Ser Gln Ser Ser Leu Met Gly
1025          1030          1035          1040
Ser Gln Gln Phe Gln Asp Gly Glu Asn Glu Glu Cys Gly Ala Ser Leu
          1045          1050          1055
Gly Gly His Glu His Pro Asp Leu Ser Asp Gly Ser Gln His Leu Asn
          1060          1065          1070
Ser Ser Cys Tyr Pro Ser Thr Cys Ile Thr Asp Ile Leu Leu Ser Tyr
          1075          1080          1085
Lys His Pro Glu Val Ser Phe Ser Met Glu Gln Ala Gly Val
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<210> 6101
<211> 1447
<212> DNA
<213> Homo sapiens

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<400> 6101
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120
catctagaaa tatactccgt gatctttctt gatggccaga ctgtgtaaaa ttcatacagt
180
gtttactaca gggatcccca aatattgtta gttgaatgaa caaacacaca tttcaaggag
240
ggcactacag tgagtagatg aacagttttc tgataggaga ttgtacaagt aatgttttca
300
ccagtgtatt ttaggacagc agattcagat taatgcgctg ggactgaatg caaatagtaa
360
aattacaaat ataaagtaaa aatttggaac ctttgccaca gagaggaata ataaattgat
420
ttaataattt gaaagaactg taaggtttag gttttgttct ttttttagt gcgactgaga
480
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540
gccaaaggaa agatggaagg ataaatcagt gtaataaaaa ggagcacttc ttttcgccca
600
acagaagtaa aggtaaaggt taagtgtctg agttaacgaa tggattgttg acctctgggg
660

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 720
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 780
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 840
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<210> 6102

<211> 123

<212> PRT

<213> Homo sapiens

<400> 6102

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Val	Ala	Tyr	Arg	Ser	Ser	His	Gly	Asp	Leu	Arg	Pro	Arg	Ala	Ser	Ala
			20					25					30		
Leu	Ala	Met	Val	Ser	Gly	Asp	Gly	Phe	Leu	Val	Ser	Arg	Pro	Glu	Ala
		35					40					45			
Ile	His	Leu	Gly	Pro	Arg	Gln	Ala	Val	Arg	Pro	Ser	Val	Arg	Ala	Glu
	50					55					60				
Ser	Arg	Arg	Val	Asp	Gly	Gly	Gly	Arg	Ser	Pro	Arg	Glu	Pro	Asp	Gly
65					70					75				80	
Arg	Gly	Arg	Ser	Arg	Gln	Ala	Arg	Phe	Ser	Pro	Tyr	Pro	Ile	Pro	Ala
				85					90					95	
Val	Glu	Pro	Asp	Leu	Leu	Arg	Ser	Val	Leu	Gln	Gln	Arg	Leu	Ile	Ala
			100					105						110	
Leu	Gly	Gly	Val	Ile	Ala	Ala	Arg	Ile	Ser	Val					
			115					120							

<210> 6103

<211> 309

<212> DNA

<213> Homo sapiens

<400> 6103

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 120
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 180
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 cggtacgcg
 309

<210> 6104

<211> 71

<212> PRT

<213> Homo sapiens

<400> 6104

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Ile	Gly	Gln	Ser	Pro	Val	Arg	Val	Leu	Lys	Glu	Ile	Asp	Gly	Phe	Val
		20						25					30		
Leu	Asn	Arg	Leu	Gln	Tyr	Ala	Val	Ile	Ser	Glu	Ala	Trp	Arg	Leu	Val
	35						40					45			
Glu	Glu	Glu	Ile	Val	Ser	Pro	Ser	Asp	Leu	Asp	Leu	Val	Met	Ser	Asp
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65						70									

<210> 6105

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 6105

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 120
 gggatgaagt ggtgtctccc ctcccatctg ctctgcaggg gtccctcagg ctccctatca
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 240
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540
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720
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<210> 6106

<211> 405

<212> PRT

<213> Homo sapiens

<400> 6106

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 20           25           30
Asn Ser Thr Gln Pro Ser Thr Ala Gly Met Lys Trp Cys Leu Pro Phe
 35           40           45
His Leu Leu Cys Arg Gly Pro Ser Gly Ser Leu Ser Ala Pro Pro Ala
 50           55           60
Ala Ser Val Ile Ser Ala Pro Pro Ser Ser Ser Ser Arg His Arg Lys
 65           70           75           80
Arg Arg Arg Thr Ser Ser Lys Ser Glu Ala Gly Ala Arg Gly Gly Gly
 85           90           95
Gln Gly Ser Lys Glu Lys Gly Arg Gly Ser Trp Gly Gly Arg His His
100           105           110
His His His Pro Leu Pro Ala Ala Gly Phe Lys Lys Gln Gln Arg Lys
115           120           125
Phe Gln Tyr Gly Asn Tyr Cys Lys Tyr Tyr Gly Tyr Arg Asn Pro Ser
130           135           140
Cys Glu Asp Gly Arg Leu Arg Val Leu Lys Pro Glu Trp Phe Arg Gly
145           150           155           160
Arg Asp Val Leu Asp Leu Gly Cys Asn Val Gly His Leu Thr Leu Ser
165           170           175           180
Ile Ala Cys Lys Trp Gly Pro Ser Arg Met Val Gly Leu Asp Ile Asp
180           185           190
Ser Arg Leu Ile His Ser Ala Arg Gln Asn Ile Arg His Tyr Leu Ser
195           200           205
Glu Glu Leu Arg Leu Pro Pro Gln Thr Leu Glu Gly Asp Pro Gly Ala
210           215           220
Glu Gly Glu Glu Gly Thr Thr Val Arg Lys Arg Ser Cys Phe Pro
225           230           235           240
Ala Ser Leu Thr Ala Ser Arg Gly Pro Ile Ala Ala Pro Gln Val Pro
245           250           255
Leu Asp Gly Ala Asp Thr Ser Val Phe Pro Asn Asn Val Val Phe Val
260           265           270
Thr Gly Asn Tyr Val Leu Asp Arg Asp Asp Leu Val Glu Ala Gln Thr
275           280           285
Pro Glu Tyr Asp Val Val Leu Cys Leu Ser Leu Thr Lys Trp Val His
290           295           300
Leu Asn Trp Gly Asp Glu Gly Leu Lys Arg Met Phe Arg Arg Ile Tyr
305           310           315           320
Arg His Leu Arg Pro Gly Gly Ile Leu Val Leu Glu Pro Gln Pro Trp
325           330           335
Ser Ser Tyr Gly Lys Arg Lys Thr Leu Thr Glu Thr Ile Tyr Lys Asn
340           345           350
Tyr Tyr Arg Ile Gln Leu Lys Pro Glu Gln Phe Ser Ser Tyr Leu Thr
355           360           365
Ser Pro Asp Val Gly Phe Ser Ser Tyr Glu Leu Val Ala Thr Pro His
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Arg Ser Pro Ser His
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<210> 6107
 <211> 896
 <212> DNA
 <213> Homo sapiens

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 660
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 720
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 780
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 896

<210> 6108
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 6108
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 Gly Leu Ser Ser Asp Leu Arg Gly Ala Ser Gly Leu Leu Leu Pro Ala
 20 25 30
 Pro Ala Cys Leu Leu Gly Arg Pro Trp Met Ser Arg Arg Cys Ser Arg
 35 40 45
 Leu Gly Ser Thr Pro Pro Pro Ala Pro Ala Ser Pro Val Glu Ser Pro
 50 55 60
 Arg Pro Ser Pro Ala Ser Ser Ala Phe Ser Ser Leu Pro Ser Asp Gly
 65 70 75 80
 Trp Gly Ser Ser Val Gly Ser Gly Leu Pro Trp Pro Ala Thr Arg Trp

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 1320
 tagaatcaga ggttggacac tatacataag gacaggctca catgggaggc tggaggtggg
 1380
 taccagctg ctgtggaacg ggtatggaga ggtcataaac ctagagtcag tgtcctgttg
 1440
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 ccctgccaat ttgtgtatct tctctggcct ctccagtcct gttactcct ctatttttaa
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 1920
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<210> 6110

<211> 323

<212> PRT

<213> Homo sapiens

<400> 6110

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Ser	Phe	Arg	Ala	Ser	Ser	Ala	Cys	Gly	Ala	Gly	Gly	Glu	Val	Gly	Gly
			20				25						30		
Pro	Gly	Ala	Ala	Ala	Gly	Leu	Thr	Leu	Leu	Cys	Ser	Leu	Val	Pro	Ile
			35				40					45			
Cys	Val	Leu	Arg	Arg	Pro	Gly	Ala	Asn	His	Glu	Gly	Ser	Ala	Ser	Arg
			50			55					60				
Gln	Lys	Ala	Leu	Ser	Leu	Val	Ser	Cys	Phe	Ala	Gly	Gly	Val	Phe	Leu
65					70					75					80
Ala	Thr	Cys	Leu	Leu	Asp	Leu	Leu	Pro	Asp	Tyr	Leu	Ala	Ala	Ile	Asp
					85				90					95	
Glu	Ala	Leu	Ala	Ala	Leu	His	Val	Thr	Leu	Gln	Phe	Pro	Leu	Gln	Glu
					100			105					110		
Phe	Ile	Leu	Ala	Met	Gly	Phe	Phe	Leu	Val	Leu	Val	Met	Glu	Gln	Ile
					115			120				125			
Thr	Leu	Ala	Tyr	Lys	Glu	Gln	Ser	Gly	Pro	Ser	Pro	Leu	Glu	Glu	Thr
					130			135				140			
Arg	Ala	Leu	Leu	Gly	Thr	Val	Asn	Gly	Gly	Pro	Gln	His	Trp	His	Asp

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 Gly Pro Gly Val Pro Gln Ala Ser Gly Ala Pro Ala Thr Pro Ser Ala
 165 170 175
 Leu Arg Ala Cys Val Leu Val Phe Ser Leu Ala Leu His Ser Val Phe
 180 185 190
 Glu Gly Leu Ala Val Gly Leu Gln Arg Asp Arg Ala Arg Ala Met Glu
 195 200 205
 Leu Cys Leu Ala Leu Leu Leu His Lys Gly Ile Leu Ala Val Ser Leu
 210 215 220
 Ser Leu Arg Leu Leu Gln Ser His Leu Arg Ala Gln Val Val Ala Gly
 225 230 235 240
 Cys Gly Ile Leu Phe Ser Cys Met Thr Pro Leu Gly Ile Gly Leu Gly
 245 250 255
 Ala Ala Leu Ala Glu Ser Ala Gly Pro Leu His Gln Leu Ala Gln Ser
 260 265 270
 Val Leu Glu Gly Met Ala Ala Gly Thr Phe Leu Tyr Ile Thr Phe Leu
 275 280 285
 Glu Ile Leu Pro Gln Glu Leu Ala Ser Ser Glu Gln Arg Ile Leu Lys
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<210> 6111

<211> 1706

<212> DNA

<213> Homo sapiens

<400> 6111

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<210> 6112

<211> 110

<212> PRT

<213> Homo sapiens

<400> 6112

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 Pro Leu Pro Gly Phe Lys Gln Phe Ser Cys Arg Ser Leu Pro Ser Ser
 35 40 45
 Trp Asp Tyr Arg His Ala Pro Pro Arg Gln Ala Asn Phe Cys Ile Phe
 50 55 60
 Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp Ser Gln Thr Pro
 65 70 75 80
 Asp Leu Arg Arg Ser Thr His Leu Ser Val Pro Lys Cys Trp Asp Tyr
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 Arg Arg Glu Pro Pro His Leu Ala Tyr Glu Trp Ser Phe Asn

100

105

110

<210> 6113

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 6113

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 ggtgacgcac ttacggcgg cagcgtaagt gcgtgacgct cgtcagtggc ttcagttcac
 120
 acgtggcggc agcggaggca ggttgatgtg tttgtgcttc cttctacagc caatatgaaa
 180
 aggcctagta agtggggctcg ggaggcgggc gtggaggggac ccacgtctgg aagttgctgc
 240
 agccaccarg acgtcttctt acggctacgg ctttgtctct gctgggtatgg ggggtgggagc
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 360
 atcatgttaa ccgcgcgggc tcattctgcg gaacgaagcc gggcagaggg tggggaagac
 420
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 480
 tccgtggcca cgtgcagact ggcccagggt agagctgaga atcgctccc agactcagtg
 540
 ttctctctct gccttatgat tcgtgctgtt tgacacgaag tggttgtcgt tttgtgtctc
 600
 atacgctgtt gtgtatgac ccatttcta atgttgaggg taagtgcagg gaattttgac
 660
 tccattctgg atctactgaa ttaattctc tgggatttga aagtagcacg tatgtttgca
 720
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 780
 ataactccat agtgcgttaa ccagaacta atcatttggg ttaacagatt tgtgatgtgt
 840
 ttctttgtag agttaaagaa agcaagtaaa cgcattgacct gccataagcg gtataaaatc
 900
 caaaaaaagg ttcgagaaca tcatcgaaaa ttaagaaagg aggctaaaaa gcggggtcac
 960
 aagaagccta ggaaagaccc aggagtcca aacagtgtc cctttaagga ggctcttctt
 1020
 gaggaagctg agctaaggaa acagaggctt gaagaactaa aacagcagca gaaacttgac
 1080
 aggcagaagg aacta
 1095

<210> 6114

<211> 87

<212> PRT

<213> Homo sapiens

<400> 6114

Met Cys Phe Phe Val Glu Leu Lys Lys Ala Ser Lys Arg Met Thr Cys


```

      1           5           10           15
His Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys
      20           25           30
Leu Arg Lys Glu Ala Lys Lys Arg Gly His Lys Lys Pro Arg Lys Asp
      35           40           45
Pro Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Glu Glu
      50           55           60
Ala Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys
      65           70           75           80
Leu Asp Arg Gln Lys Glu Leu
      85

```

<210> 6115

<211> 411

<212> DNA

<213> Homo sapiens

<400> 6115

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120
actgtggcgt cccagggcgg tggagggagc aacttcgggg gcacgtcttc gtaaattccc
180
tggaggacac tgacctgta cccaccctc gaggccagaa gtcggttcct ttgggggaac
240
tgaggggcga gagcactcgc cccctgact tgcaaagttg gcgtctttac ttggcctcgc
300
ggattctgcg catggcgtgt ctccaggctg ctgatgggca agacagatgt gccaggtcca
360
gaatgaactt gagaagagtt tgtagccatt cctgaatcac cttatactag t
411

```

<210> 6116

<211> 129

<212> PRT

<213> Homo sapiens

<400> 6116

```

Met Ala Thr Asn Ser Ser Gln Val His Ser Gly Pro Gly Thr Ser Val
      1           5           10           15
Leu Pro Ile Ser Ser Leu Glu Thr Arg His Ala Gln Asn Pro Gly Gly
      20           25           30
Gln Val Lys Thr Pro Thr Leu Gln Val Arg Gly Ala Ser Ala Leu Ala
      35           40           45
Pro Gln Phe Pro Gln Arg Asn Arg Leu Leu Ala Ser Arg Val Gly Tyr
      50           55           60
Arg Val Ser Val Leu His Gly Ile Tyr Glu Asp Val Pro Pro Lys Leu
      65           70           75           80
Leu Pro Pro Pro Pro Trp Asp Ala Thr Val Arg Pro Ala Asp Glu Phe
      85           90           95
Leu Pro Gln Arg Pro Arg Glu Gly Gly Leu Arg Ala Ala Ala Ala Ala
      100          105          110
Thr Gly Gly Glu Ala Ser Ala Gly Asn Leu Gly Pro Gly Gly Ala Arg

```

115 120 125
 Arg

 <210> 6117
 <211> 962
 <212> DNA
 <213> Homo sapiens

 <400> 6117
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 60
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 120
 tcgggaggcg acaagatgtt ctccctcaag aagtggaaac cggtggccat gtggagctgg
 180
 gacgtggagt gcgatacgtg cgccatctgc aggtgccagg tgatggatgc ctgtcttaga
 240
 tgtcaagctg aaaacaaaca agaggactgt gttgtggtct ggggagaatg taatcattcc
 300
 ttccacaact gctgcatgtc cctgtgggtg aaacagaaca atcgctgccc tctctgccag
 360
 caggactggg tgggtccaaag aatcggcaaa tgagagtggg tagaaggctt cttagcgcag
 420
 ttgttcagag ccctgggtgga tcttctaata cagtgccta caaaggctag aacactacag
 480
 gggatgaatt cttcaaatag gagccgatgg atctgtggtc ctttgggact catcaaagcc
 540
 ttggttttagc attttgtcag ttttatcttc agaaattctc tgcgattaag aagataattt
 600
 attaaagggtg gtccttccta cctctgtggt gtgtgtcgcg cacacagctt agaagtgcta
 660
 taaaaaagga aagagctcca aattgaatca cctttataat ttacccattt ctatacaaca
 720
 ggcagtggaa gcagtttcag agaacttttt gcattgcttat ggttgatcag ttaaaaaaga
 780
 atgttacagt aacaaataaa gtgcagttta aaacccaact cttactctta atttgttctt
 840
 aatacgtatt tttggcaggg agagggaacg gtccatgaaa tctttatgtg atataaggat
 900
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 960
 aa
 962

 <210> 6118
 <211> 113
 <212> PRT
 <213> Homo sapiens

 <400> 6118
 Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His
 1 5 10 15
 Ser Gly Ser Ser Gly Ser Lys Ser Gly Gly Asp Lys Met Phe Ser Leu

```

      20      25      30
Lys Lys Trp Asn Ala Val Ala Met Trp Ser Trp Asp Val Glu Cys Asp
      35      40      45
Thr Cys Ala Ile Cys Arg Val Gln Val Met Asp Ala Cys Leu Arg Cys
      50      55      60
Gln Ala Glu Asn Lys Gln Glu Asp Cys Val Val Val Trp Gly Glu Cys
65      70      75      80
Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
      85      90      95
Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly
      100      105      110
Lys

```

<210> 6119
 <211> 375
 <212> DNA
 <213> Homo sapiens

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<400> 6119
accggttgac aaäctcccta tggggaagct agatacagcc ccatggacat gccccactga
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ccccacacc ccacacggac tgcacggaaa tatcacagta accatctctc agtcacagcg
120
tggecccaca gaactcatgc ctgcttgctt taaaccacc aatgaaaact ccccatggga
180
aacctgcttg gataatactt tggaccccaa taaatgcttt aatcccacaa gtcctctgtc
240
tctgcctctc tcttgccctt acccactggg tgagcatgtg tgtcccaaac ggccctgcaa
300
gggtgtgctgc cctgttcttt ctgggctctg tcaaggaatc aaactgcttc tggtatgtga
360
tgtgtcatgt tgtgc
375

```

<210> 6120
 <211> 118
 <212> PRT
 <213> Homo sapiens

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<400> 6120
Met Gly Lys Leu Asp Thr Ala Pro Trp Thr Cys Pro Thr Asp Pro His
1      5      10      15
Thr Pro His Gly Leu His Gly Asn Ile Thr Val Thr Ile Ser Gln Ser
      20      25      30
Gln Arg Gly Pro Thr Glu Leu Met Pro Ala Cys Phe Lys Pro Thr Asn
      35      40      45
Glu Asn Ser Pro Trp Glu Thr Cys Leu Asp Asn Thr Leu Asp Pro Asn
      50      55      60
Lys Cys Phe Asn Pro Thr Ser Pro Leu Ser Leu Pro Leu Ser Cys Pro
65      70      75      80
Tyr Pro Leu Val Glu His Val Cys Pro Lys Arg Pro Cys Lys Val Cys
      85      90      95
Cys Pro Val Leu Ser Gly Leu Cys Gln Gly Ile Lys Leu Leu Leu Leu

```

100
Cys Asp Val Ser Cys Cys
115

105

110

<210> 6121
<211> 1039
<212> DNA
<213> Homo sapiens

<400> 6121
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ttgtaaacad tgatttgaat gatgacaaca ttgacagtgt ttgtaaactg ggaacagaca
120
aagaacact ctccctctgc cacatttgtt ttgagctaaa tattgagggg gtaccaaagt
180
ctgatctctt gcacacccaa tcattaaggg gccataaaga ctgctttgaa aaataccatt
240
taattgcaaa ccagggttgt cctcgatcta agctttcaaa aagtacttat gaagaagtta
300
aaaccatttt gagtaagaag ataaactgga ttgtgcagta tgcacaaaat aaggatctgg
360
attcagattc tgaatgttct aaaaagcccc agcatcatct gtttaatttc aggcataagc
420
cagaagaaaa attactccca cagtttgagt cccaagtacc aaaatattct gcaaaatgga
480
tagatggaag tgcagggtggc atctctaact gtacacaaag aattttggag cagagggaaa
540
atacagactt tggactttct atgttacaag attcagggtgc cactttatgt cgtaacagtg
600
tattgtggcc tcatagtcac aaccaggcac agaaaaaaga agagacaatc tctagtccag
660
aggctaattg ccagaccag catccacatt acagcagaga ggaataagtt tttgaagagt
720
taactacca agtgcaagaa aaagattctt tggcctcaca gctccatgtc cgccacgttg
780
ccatcgaaca gcttctgaag aactgttcta agttaccatg tctgcaagta gggcgaacag
840
gaatgaagtc gcacctacc ataaacaact gacctaaaca gacttacttc gtatgccttg
900
ccctttattg gtctcccaga catgcaaact ttgaagaagt ttgaagaaag ttgtggtccg
960
tttttttatg gtcattaaat ttgccaaaca taaggcagta tttaacatct ttgtcaaata
1020
aagcagatca ttatactct
1039

<210> 6122
<211> 221
<212> PRT
<213> Homo sapiens

<400> 6122
Met Asn Glu Glu Glu Gln Phe Val Asn Ile Asp Leu Asn Asp Asp Asn

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      1           5           10           15
Ile Cys Ser Val Cys Lys Leu Gly Thr Asp Lys Glu Thr Leu Ser Phe
      20           25           30
Cys His Ile Cys Phe Glu Leu Asn Ile Glu Gly Val Pro Lys Ser Asp
      35           40           45
Leu Leu His Thr Lys Ser Leu Arg Gly His Lys Asp Cys Phe Glu Lys
      50           55           60
Tyr His Leu Ile Ala Asn Gln Gly Cys Pro Arg Ser Lys Leu Ser Lys
      65           70           75           80
Ser Thr Tyr Glu Glu Val Lys Thr Ile Leu Ser Lys Lys Ile Asn Trp
      85           90           95
Ile Val Gln Tyr Ala Gln Asn Lys Asp Leu Asp Ser Asp Ser Glu Cys
      100          105          110
Ser Lys Lys Pro Gln His His Leu Phe Asn Phe Arg His Lys Pro Glu
      115          120          125
Glu Lys Leu Leu Pro Gln Phe Glu Ser Gln Val Pro Lys Tyr Ser Ala
      130          135          140
Lys Trp Ile Asp Gly Ser Ala Gly Gly Ile Ser Asn Cys Thr Gln Arg
      145          150          155          160
Ile Leu Glu Gln Arg Glu Asn Thr Asp Phe Gly Leu Ser Met Leu Gln
      165          170          175
Asp Ser Gly Ala Thr Leu Cys Arg Asn Ser Val Leu Trp Pro His Ser
      180          185          190
His Asn Gln Ala Gln Lys Lys Glu Glu Thr Ile Ser Ser Pro Glu Ala
      195          200          205
Asn Val Gln Thr Gln His Pro His Tyr Ser Arg Glu Glu
      210          215          220

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<210> 6123

<211> 900

<212> DNA

<213> Homo sapiens

<400> 6123

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ntgcatgcct gtataccaca gctactcggg aggctgagggc gggagaatcg cttgaaccca
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120
gcgaaacaac aagagaaaaa aaaggaagct gccctctgcc caaaaccac gtcgaggtcc
180
ccaaacctgg gacccttagg tcttttctca cttagcgtgc ccaaccttct cctggcagga
240
aacaagcctc caggctctgct tccccgcaaa ggactataca tggcaaatga cttaaagctc
300
ctgagacacc atctccagat tcccatccac tcccccaagg atttcttgct tgtgatgctt
360
gaaaaaggaa gtttgtctgc catgcgtttc ctcaccgccg tgaacttgga gcatccagag
420
atgctggaga aagcgtcccg ggagctgtgg atgcgcgtct ggtcaagggg gagtgtgggg
480
ctctgggaat cctctgggag gaccttggat gactttctga ccttccccag gcacgttttc
540
agggtcatga tctgtccccc gcccggggga tctactgtcc tccagtcac acccctctcc
600

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ccgcaccgcc ttctgtctgt cttctcttct tcccagaatg aagacatcac cgagccgcag
 660
 agcatcctgg cggctgcaga gaaggctggt atgtctgcag aacaagccca gggacttctg
 720
 gaaaagatcg caacgccaaa ggtgaagaac cagctcaagg agaccactga ggcagcctgc
 780
 agatacggag cctttgggct gcccacacc gtggcccatg tggatggcca aaccacatg
 840
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 900

<210> 6124

<211> 300

<212> PRT

<213> Homo sapiens

<400> 6124

Xaa	His	Ala	Cys	Ile	Pro	Gln	Leu	Leu	Gly	Arg	Leu	Arg	Arg	Glu	Asn
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Arg	Leu	Asn	Pro	Gly	Gly	Gly	Gly	Cys	Gly	Glu	Leu	Arg	Ser	His	His
		20						25					30		
Cys	Thr	Pro	Ala	Trp	Ala	Thr	Arg	Ala	Lys	Gln	Gln	Glu	Lys	Lys	Lys
		35					40					45			
Glu	Ala	Ala	Leu	Cys	Pro	Lys	Pro	Thr	Ser	Arg	Ser	Pro	Asn	Leu	Gly
	50					55					60				
Pro	Leu	Gly	Leu	Phe	Ser	Leu	Ser	Val	Pro	Asn	Leu	Leu	Leu	Ala	Gly
65				70						75				80	
Asn	Lys	Pro	Pro	Gly	Leu	Leu	Pro	Arg	Lys	Gly	Leu	Tyr	Met	Ala	Asn
				85					90					95	
Asp	Leu	Lys	Leu	Leu	Arg	His	His	Leu	Gln	Ile	Pro	Ile	His	Phe	Pro
		100						105					110		
Lys	Asp	Phe	Leu	Ser	Val	Met	Leu	Glu	Lys	Gly	Ser	Leu	Ser	Ala	Met
		115					120					125			
Arg	Phe	Leu	Thr	Ala	Val	Asn	Leu	Glu	His	Pro	Glu	Met	Leu	Glu	Lys
	130					135					140				
Ala	Ser	Arg	Glu	Leu	Trp	Met	Arg	Val	Trp	Ser	Arg	Val	Ser	Val	Gly
145					150					155				160	
Leu	Trp	Glu	Ser	Ser	Gly	Arg	Thr	Leu	Asp	Asp	Phe	Leu	Thr	Phe	Pro
				165					170					175	
Arg	His	Val	Phe	Arg	Val	Met	Ile	Leu	Pro	Pro	Pro	Gly	Gly	Ser	Thr
		180					185						190		
Val	Leu	Pro	Val	Thr	Pro	Leu	Ser	Pro	His	Arg	Leu	Pro	Ala	Val	Phe
		195					200					205			
Ser	Ser	Ser	Gln	Asn	Glu	Asp	Ile	Thr	Glu	Pro	Gln	Ser	Ile	Leu	Ala
	210					215					220				
Ala	Ala	Glu	Lys	Ala	Gly	Met	Ser	Ala	Glu	Gln	Ala	Gln	Gly	Leu	Leu
225					230					235				240	
Glu	Lys	Ile	Ala	Thr	Pro	Lys	Val	Lys	Asn	Gln	Leu	Lys	Glu	Thr	Thr
				245					250					255	
Glu	Ala	Ala	Cys	Arg	Tyr	Gly	Ala	Phe	Gly	Leu	Pro	Ile	Thr	Val	Ala
		260					265						270		
His	Val	Asp	Gly	Gln	Thr	His	Met	Leu	Phe	Gly	Ser	Asp	Arg	Met	Glu
		275					280					285			
Leu	Leu	Ala	His	Leu	Leu	Gly	Glu	Lys	Trp	Met	Gly				

290 295 300

<210> 6125
 <211> 468
 <212> DNA
 <213> Homo sapiens

<400> 6125
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 60
 atgaaacagg acttagagga tgccagtaac aaggcggagg aggagagggc ccgcctggag
 120
 ggagaattga aggggctgca ggagcaaata gcagaaacca aagcccggct tatcacgcag
 180
 cagcatgacg gggcccaaga gcagagtgac catgccttga tgctgcgtga gctccagaag
 240
 ctgctgcagg aggagaggac ccagcgccag gacttggagc ttagggttaga agagacccga
 300
 gaagccttgg caggacgagc atatgcagct gaacagatgg aaggatttga actgcagacc
 360
 aagcagctga cccgtgaggt ggaggagctg aaaagtgaac tgcaggccat tcgagatgag
 420
 aagaatcagc cagacccccg gctgcaagaa cttcaggaag aggccgcc
 468

<210> 6126
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 6126
 Xaa Thr Val Thr Gln Glu Lys Ser Arg Met Glu Ala Ser Tyr Leu Ala
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 Asp Lys Lys Lys Met Lys Gln Asp Leu Glu Asp Ala Ser Asn Lys Ala
 20 25 30
 Glu Glu Glu Arg Ala Arg Leu Glu Gly Glu Leu Lys Gly Leu Gln Glu
 35 40 45
 Gln Ile Ala Glu Thr Lys Ala Arg Leu Ile Thr Gln Gln His Asp Arg
 50 55 60
 Ala Gln Glu Gln Ser Asp His Ala Leu Met Leu Arg Glu Leu Gln Lys
 65 70 75 80
 Leu Leu Gln Glu Glu Arg Thr Gln Arg Gln Asp Leu Glu Leu Arg Leu
 85 90 95
 Glu Glu Thr Arg Glu Ala Leu Ala Gly Arg Ala Tyr Ala Ala Glu Gln
 100 105 110
 Met Glu Gly Phe Glu Leu Gln Thr Lys Gln Leu Thr Arg Glu Val Glu
 115 120 125
 Glu Leu Lys Ser Glu Leu Gln Ala Ile Arg Asp Glu Lys Asn Gln Pro
 130 135 140
 Asp Pro Arg Leu Gln Glu Leu Gln Glu Glu Ala Ala
 145 150 155

<210> 6127
 <211> 1900

<212> DNA

<213> Homo sapiens

<400> 6127

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120
cgggcaagag actccaatat ggtgagggcg gcagcagagc tggccctgag ctgcctgcct
180
cacgcccattg cattgaaccc taatgagatc cagcggggccc tggcgagtg caaggaacag
240
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300
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360
gcaggtggct catccacagc ccgtgaaggg gctacaagct gtagtgccag tgggatcagg
420
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480
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600
tactactgctc tacagcccca cctgcctgt agccctcagt atctcactca cccagctcac
660
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720
taccacaggg gtgtgcatcc tgcattccta ggggctcagt acccttattc agtgactcct
780
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840
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960
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1020
gaggaggaga cacacagtca gccagtcaat cccacagcc tgcaccacct gcatgctgcc
1080
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1140
aacaacttct cccgtcccc cccctacact gatgatgtca aatggttgct ggggctggca
1200
gcaaagctgg gagtgaacta cgtgcaccag ttctgtgtgg gggcagccaa gggggtgctg
1260
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1380
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1440
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1500

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 1560
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 1800
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<210> 6128

<211> 530

<212> PRT

<213> Homo sapiens

<400> 6128

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Thr	Ile	Leu	Val	Glu	Cys	Trp	Asp	Gly	His	Leu	Thr	Pro	Pro	Glu	Val
			20					25					30		
Ala	Ser	Leu	Ala	Asp	Arg	Ala	Ser	Arg	Ala	Arg	Asp	Ser	Asn	Met	Val
		35					40					45			
Arg	Ala	Ala	Ala	Glu	Leu	Ala	Leu	Ser	Cys	Leu	Pro	His	Ala	His	Ala
		50				55					60				
Leu	Asn	Pro	Asn	Glu	Ile	Gln	Arg	Ala	Leu	Val	Gln	Cys	Lys	Glu	Gln
65					70					75				80	
Asp	Asn	Leu	Met	Leu	Glu	Lys	Ala	Cys	Met	Ala	Val	Glu	Glu	Ala	Ala
				85					90					95	
Lys	Gly	Gly	Gly	Val	Tyr	Pro	Glu	Val	Leu	Phe	Glu	Val	Ala	His	Gln
			100					105					110		
Trp	Phe	Trp	Leu	Tyr	Glu	Gln	Thr	Ala	Gly	Gly	Ser	Ser	Thr	Ala	Arg
		115					120					125			
Glu	Gly	Ala	Thr	Ser	Cys	Ser	Ala	Ser	Gly	Ile	Arg	Ala	Gly	Gly	Glu
		130				135					140				
Ala	Gly	Arg	Gly	Met	Pro	Glu	Gly	Arg	Gly	Gly	Pro	Gly	Thr	Glu	Pro
145					150					155				160	
Val	Thr	Val	Ala	Ala	Ala	Ala	Val	Thr	Ala	Ala	Ala	Thr	Val	Val	Pro
				165					170					175	
Val	Ile	Ser	Val	Gly	Ser	Ser	Leu	Tyr	Pro	Gly	Pro	Gly	Leu	Gly	His
			180					185					190		
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<210> 6129

<211> 2012

<212> DNA

<213> Homo sapiens

<400> 6129

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<211> 364

<212> PRT

<213> Homo sapiens

<400> 6130

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Thr Tyr Ile Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala
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Ile Ile Ile Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr
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<210> 6131

<211> 3526

<212> DNA

<213> Homo sapiens

<400> 6131

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<211> 167

<212> PRT

<213> Homo sapiens

<400> 6132

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<212> DNA

<213> Homo sapiens

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<210> 6134

<211> 595

<212> PRT

<213> Homo sapiens

<400> 6134

Met	Ala	Thr	Lys	Ala	Arg	Val	Met	Tyr	Asp	Phe	Ala	Ala	Glu	Pro	Gly
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Asn	Asn	Glu	Leu	Thr	Val	Asn	Glu	Gly	Glu	Ile	Ile	Thr	Ile	Thr	Asn
			20					25					30		
Pro	Asp	Val	Gly	Gly	Gly	Trp	Leu	Glu	Gly	Arg	Asn	Ile	Lys	Gly	Glu
		35				40					45				
Arg	Gly	Leu	Val	Pro	Thr	Asp	Tyr	Val	Glu	Ile	Leu	Pro	Ser	Asp	Gly
	50				55				60						
Lys	Asp	Gln	Phe	Ser	Cys	Gly	Asn	Ser	Val	Ala	Asp	Gln	Ala	Phe	Leu
65					70				75					80	
Asp	Ser	Leu	Ser	Ala	Ser	Thr	Ala	Gln	Ala	Ser	Ser	Ser	Ala	Ala	Ser
			85					90					95		
Asn	Asn	His	Gln	Val	Gly	Ser	Gly	Asn	Asp	Pro	Trp	Ser	Ala	Trp	Ser
		100						105					110		
Ala	Ser	Lys	Ser	Gly	Asn	Trp	Glu	Ser	Ser	Glu	Gly	Trp	Gly	Ala	Gln

115	120	125
Pro Glu Gly Ala Gly Ala Gln Arg Asn Thr Asn Thr Pro Asn Asn Trp		
130	135	140
Asp Thr Ala Phe Gly His Pro Gln Ala Tyr Gln Gly Pro Ala Thr Gly		
145	150	155
Asp Asp Asp Asp Trp Asp Glu Asp Trp Asp Gly Pro Lys Ser Ser Ser		
165	170	175
Tyr Phe Lys Asp Ser Glu Ser Ala Asp Ala Gly Gly Ala Gln Arg Gly		
180	185	190
Asn Ser Arg Ala Ser Ser Ser Ser Met Lys Ile Pro Leu Asn Lys Phe		
195	200	205
Pro Gly Phe Ala Lys Pro Gly Thr Glu Gln Tyr Leu Leu Ala Lys Gln		
210	215	220
Leu Ala Lys Pro Lys Glu Lys Ile Pro Ile Ile Val Gly Asp Tyr Gly		
225	230	235
Pro Met Trp Val Tyr Pro Thr Ser Thr Phe Asp Cys Val Val Ala Asp		
245	250	255
Pro Arg Lys Gly Ser Lys Met Tyr Gly Leu Lys Ser Tyr Ile Glu Tyr		
260	265	270
Gln Leu Thr Pro Thr Asn Thr Asn Arg Ser Val Asn His Arg Tyr Lys		
275	280	285
His Phe Asp Trp Leu Tyr Glu Arg Leu Leu Val Lys Phe Gly Ser Ala		
290	295	300
Ile Pro Ile Pro Ser Leu Pro Asp Lys Gln Val Thr Gly Arg Phe Glu		
305	310	315
Glu Glu Phe Ile Lys Met Arg Met Glu Arg Leu Gln Ala Trp Met Thr		
325	330	335
Arg Met Cys Arg His Pro Val Ile Ser Glu Ser Glu Val Phe Gln Gln		
340	345	350
Phe Leu Asn Phe Arg Asp Glu Lys Glu Trp Lys Thr Gly Lys Arg Lys		
355	360	365
Ala Glu Arg Asp Glu Leu Ala Gly Val Met Ile Phe Ser Thr Met Glu		
370	375	380
Pro Glu Ala Pro Asp Leu Asp Leu Val Glu Ile Glu Gln Lys Cys Glu		
385	390	395
Ala Val Gly Lys Phe Thr Lys Ala Met Asp Asp Gly Val Lys Glu Leu		
405	410	415
Leu Thr Val Gly Gln Glu His Trp Lys Arg Cys Thr Gly Pro Leu Pro		
420	425	430
Lys Glu Tyr Gln Lys Ile Gly Lys Ala Leu Gln Ser Leu Ala Thr Val		
435	440	445
Phe Ser Ser Ser Gly Tyr Gln Gly Glu Thr Asp Leu Asn Asp Ala Ile		
450	455	460
Thr Glu Ala Gly Lys Thr Tyr Glu Glu Ile Ala Ser Leu Val Ala Glu		
465	470	475
Gln Pro Lys Lys Asp Leu His Phe Leu Met Glu Cys Asn His Glu Tyr		
485	490	495
Lys Gly Phe Leu Gly Cys Phe Pro Asp Ile Ile Gly Thr His Lys Gly		
500	505	510
Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr Ser Lys		
515	520	525
Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser Ile Met		
530	535	540
Ser Tyr Ala Leu Gln Ala Glu Met Asn His Phe His Ser Asn Arg Ile		

545 550 555 560
 Tyr Asp Tyr Asn Ser Val Ile Arg Leu Tyr Leu Glu Gln Gln Val Gln
 565 570 575
 Phe Tyr Glu Thr Ile Ala Glu Lys Leu Arg Gln Ala Leu Ser Arg Phe
 580 585 590
 Pro Val Met
 595

<210> 6135
 <211> 526
 <212> DNA
 <213> Homo sapiens

<400> 6135
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 120
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 180
 gtccccaag tgcgtcttcc agtagtgaca tgtctctctc agaacctcca cagcctcttg
 240
 caagaaaaga cttgatggaa tctacatgga tgcagcctga aagattgagc ccacaagttc
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 accattctca accacagcct tttgctggaa cagctggaag tttactctcc catctcttga
 360
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 420
 atcataatat ggcttcaagg ccattaactt ttacacctca accatatgtg acctcaccag
 480
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 526

<210> 6136
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 6136
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 20 25 30
 Ser Gln Pro Gln Pro Phe Ala Gly Thr Ala Gly Ser Leu Leu Ser His
 35 40 45
 Leu Leu Ser Leu Glu His Val Gly Ile Leu His Lys Asp Phe Glu Ser
 50 55 60
 Ile Leu Pro Thr Arg Lys Asn His Asn Met Ala Ser Arg Pro Leu Thr
 65 70 75 80
 Phe Thr Pro Gln Pro Tyr Val Thr Ser Pro Ala Ala Tyr Thr Asp Ala
 85 90 95
 Leu Val Lys Pro Ser Ala Ser Gln Tyr
 100 105

<210> 6137
<211> 2073
<212> DNA
<213> Homo sapiens

<400> 6137
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180
aggcctaagt taaagaaagc aagtaaagc atgacctgcc ataagcggta taaaatccaa
240
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300
aagcctagga aagaccagg agttccaaac agtgctccct ttaaggaggc tcttcttagg
360
gaagctgagc taaggaaaca gaggcttgaa gaactaaaac agcagcagaa acttgacagg
420
cagaaggaac tagaaaagaa aagaaaactt gaaactaatc ctgatattaa gnccatcaaa
480
tgtggaacn ntatggaaaa ggagtttggg ctttgcaaaa ctgagaacaa agccaagtgc
540
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600
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660
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720
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840
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1440

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 1860
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 1920
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 1980
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 2040
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 2073

<210> 6138

<211> 550

<212> PRT

<213> Homo sapiens

<400> 6138

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			20					25					30		
Arg	Lys	Glu	Ala	Lys	Lys	Gln	Gly	His	Lys	Lys	Pro	Arg	Lys	Asp	Pro
		35				40						45			
Gly	Val	Pro	Asn	Ser	Ala	Pro	Phe	Lys	Glu	Ala	Leu	Leu	Arg	Glu	Ala
		50				55					60				
Glu	Leu	Arg	Lys	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Gln	Gln	Gln	Lys	Leu
65					70				75					80	
Asp	Arg	Gln	Lys	Glu	Leu	Glu	Lys	Lys	Arg	Lys	Leu	Glu	Thr	Asn	Pro
				85					90					95	
Asp	Ile	Lys	Xaa	Ile	Lys	Cys	Gly	Thr	Xaa	Met	Glu	Lys	Glu	Phe	Gly
		100					105						110		
Leu	Cys	Lys	Thr	Glu	Asn	Lys	Ala	Lys	Ser	Gly	Lys	Gln	Asn	Ser	Lys
		115					120					125			
Lys	Leu	Tyr	Cys	Gln	Glu	Leu	Lys	Lys	Val	Ile	Glu	Ala	Ser	Asp	Val
		130				135					140				
Val	Leu	Glu	Val	Leu	Asp	Ala	Arg	Asp	Pro	Leu	Gly	Cys	Arg	Cys	Pro
145					150					155				160	
Gln	Val	Glu	Glu	Ala	Ile	Val	Gln	Ser	Gly	Gln	Lys	Lys	Leu	Val	Leu
				165					170					175	
Ile	Leu	Asn	Lys	Ser	Asp	Leu	Val	Pro	Lys	Glu	Asn	Leu	Glu	Ser	Trp
			180					185					190		
Leu	Asn	Tyr	Leu	Lys	Lys	Glu	Leu	Pro	Thr	Val	Val	Phe	Arg	Ala	Ser

195	200	205
Thr Lys Pro Lys Asp Lys Gly Lys Ile Thr Lys Arg Val Lys Ala Lys		
210	215	220
Lys Asn Ala Ala Pro Phe Arg Ser Glu Val Cys Phe Gly Lys Glu Gly		
225	230	235
Leu Trp Lys Leu Leu Gly Gly Phe Gln Glu Thr Cys Ser Lys Ala Ile		
245	250	255
Arg Val Gly Val Ile Gly Phe Pro Asn Val Gly Lys Ser Ser Ile Ile		
260	265	270
Asn Ser Leu Lys Gln Glu Gln Met Cys Asn Val Gly Val Ser Met Gly		
275	280	285
Leu Thr Arg Ser Met Gln Val Pro Leu Asp Lys Gln Ile Thr Ile		
290	295	300
Ile Asp Ser Pro Ser Phe Ile Val Ser Pro Leu Asn Ser Ser Ser Ala		
305	310	315
Leu Ala Leu Arg Ser Pro Ala Ser Ile Glu Val Val Lys Pro Met Glu		
325	330	335
Ala Ala Ser Ala Ile Leu Ser Gln Ala Asp Ala Arg Gln Val Val Leu		
340	345	350
Lys Tyr Thr Val Pro Gly Tyr Arg Asn Ser Leu Glu Phe Phe Thr Val		
355	360	365
Leu Ala Gln Arg Arg Gly Met His Gln Lys Gly Gly Ile Pro Asn Val		
370	375	380
Glu Gly Ala Ala Lys Leu Leu Trp Ser Glu Trp Thr Gly Ala Ser Leu		
385	390	395
Ala Tyr Tyr Cys His Pro Pro Thr Ser Trp Thr Pro Pro Pro Tyr Phe		
405	410	415
Asn Glu Ser Ile Val Val Asp Met Lys Ser Gly Phe Asn Leu Glu Glu		
420	425	430
Leu Glu Lys Asn Asn Ala Gln Ser Ile Arg Ala Ile Lys Gly Pro His		
435	440	445
Leu Ala Asn Ser Ile Leu Phe Gln Ser Ser Gly Leu Thr Asn Gly Ile		
450	455	460
Ile Glu Glu Lys Asp Ile His Glu Glu Leu Pro Lys Arg Lys Glu Arg		
465	470	475
Lys Gln Glu Glu Arg Glu Asp Asp Lys Asp Ser Asp Gln Glu Thr Val		
485	490	495
Asp Glu Glu Val Asp Glu Asn Ser Ser Gly Met Phe Ala Ala Glu Glu		
500	505	510
Thr Gly Glu Ala Leu Ser Glu Glu Thr Thr Ala Gly Glu Gln Ser Thr		
515	520	525
Arg Ser Phe Ile Leu Asp Lys Ile Ile Glu Glu Asp Asp Ala Tyr Asp		
530	535	540
Phe Ser Thr Asp Tyr Val		
545	550	

<210> 6139

<211> 2249

<212> DNA

<213> Homo sapiens

<400> 6139

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120
acagacgatg atggccaggc cccggaggct aaggacggca gtccttttag cggcagagtt
180
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240
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720
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<210> 6140

<211> 381

<212> PRT

<213> Homo sapiens

<400> 6140

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			20				25					30			
Leu	Leu	Leu	Gly	Val	Leu	His	Pro	Asn	Thr	Lys	Leu	Arg	Gln	Ala	Glu
	35					40					45				
Arg	Leu	Phe	Glu	Asn	Gln	Leu	Val	Gly	Pro	Glu	Ser	Ile	Ala	His	Ile
	50				55					60					
Gly	Asp	Val	Met	Phe	Thr	Gly	Thr	Ala	Asp	Gly	Arg	Val	Val	Lys	Leu
65					70				75						80
Glu	Asn	Gly	Glu	Ile	Glu	Thr	Ile	Ala	Arg	Phe	Xaa	Phe	Gly	Pro	Xaa
			85				90						95		
Cys	Lys	Thr	Arg	Asp	Asp	Glu	Pro	Val	Cys	Gly	Arg	Pro	Leu	Gly	Ile
			100				105					110			
Arg	Ala	Gly	Pro	Asn	Gly	Thr	Leu	Phe	Val	Ala	Asp	Ala	Tyr	Lys	Gly
	115					120					125				
Leu	Phe	Glu	Val	Asn	Pro	Trp	Lys	Arg	Glu	Val	Lys	Leu	Leu	Leu	Ser
	130				135						140				
Ser	Glu	Thr	Pro	Ile	Glu	Gly	Lys	Asn	Met	Ser	Phe	Val	Asn	Asp	Leu
145				150					155						160
Thr	Val	Thr	Gln	Asp	Gly	Arg	Lys	Ile	Tyr	Phe	Thr	Asp	Ser	Ser	Ser
			165				170						175		
Lys	Trp	Gln	Arg	Arg	Asp	Tyr	Leu	Leu	Leu	Val	Met	Glu	Gly	Thr	Asp
			180				185					190			
Asp	Gly	Arg	Leu	Leu	Glu	Tyr	Asp	Thr	Val	Thr	Arg	Glu	Val	Lys	Val
	195					200						205			
Leu	Leu	Asp	Gln	Leu	Arg	Phe	Pro	Asn	Gly	Val	Gln	Leu	Ser	Pro	Ala

210	215	220
Glu Asp Phe Val Leu Val Ala Glu Thr Thr Met Ala Arg Ile Arg Arg		
225	230	235
Val Tyr Val Ser Gly Leu Met Lys Gly Gly Ala Asp Leu Phe Val Glu		240
	245	250
Asn Met Pro Gly Phe Pro Asp Asn Ile Arg Pro Ser Ser Ser Gly Gly		255
	260	265
Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro Gly Phe Ser Met		270
	275	280
Leu Asp Phe Leu Ser Glu Arg Pro Trp Ile Lys Arg Met Ile Phe Lys		285
	290	295
Gly Ser Cys Ala Gly Cys Asp Leu Leu Phe Ser Gln Glu Thr Val Met		300
305	310	315
Lys Phe Val Pro Arg Tyr Ser Leu Val Leu Glu Leu Ser Asp Ser Gly		320
	325	330
Ala Phe Arg Arg Ser Leu His Asp Pro Asp Gly Leu Val Ala Thr Tyr		335
	340	345
Ile Ser Glu Val His Glu His Asp Gly His Leu Tyr Leu Gly Ser Phe		350
	355	360
Arg Ser Pro Phe Leu Cys Arg Leu Ser Leu Gln Ala Val		365
370	375	380

<210> 6141

<211> 5651

<212> DNA

<213> Homo sapiens

<400> 6141

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<211> 513

<212> PRT

<213> Homo sapiens

<400> 6142

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<211> 1137

<212> DNA

<213> Homo sapiens

<400> 6143

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<211> 141

<212> PRT

<213> Homo sapiens

<400> 6144

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Glu	Ser	Val	Leu	Arg	Ala	Ser	Ala	Val	Gly	Arg	Gly	Ala	Glu	Gly
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Gly	Ala	Leu	Thr	Arg	Ser	Gly	Ser	Gly	Ala	Ala	Ser	Ala	Leu	Val
		100						105					110	Arg
Pro	Gly	Glu	Lys	Gly	Cys	Trp	Cys	Arg	Thr	Ala	Ser	Gly	Ala	Gly
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<211> 766

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<213> Homo sapiens

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<211> 100

<212> PRT

<213> Homo sapiens

<400> 6146

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<210> 6147

<211> 1852

<212> DNA

<213> Homo sapiens

<400> 6147

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<210> 6148

<211> 410

<212> PRT

<213> Homo sapiens

<400> 6148

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Phe Asn Leu Asp Ile Arg Arg Ala Ile Gln Ile Leu Asn Glu Gly Ala
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Ser Ser Glu Lys Gly Asp Leu Asn Leu Asn Val Val Ala Met Ala Leu
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      130          135          140
Lys Val Ala Val Arg Asp Arg Val Ala Phe Ala Cys Lys Phe Leu Ser
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Asp Thr Gln Leu Asn Arg Tyr Ile Glu Lys Leu Thr Asn Glu Met Lys
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Glu Ala Gly Asn Leu Glu Gly Ile Leu Leu Thr Gly Leu Thr Lys Asp
      180          185          190
Gly Val Asp Leu Met Glu Ser Tyr Val Asp Arg Thr Gly Asp Val Gln
      195          200          205
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Asp Glu Arg Val Gln Tyr Trp Ile Glu Asn Tyr Arg Asn Leu Leu Asp
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Ala Trp Arg Phe Trp His Lys Arg Ala Glu Phe Asp Ile His Arg Ser
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      290          295          300
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Gly Thr Lys Ser Asp Glu Lys Val Asp Leu Ser Lys Asp Lys Lys Leu
      340          345          350
Ala Gln Phe Asn Asn Trp Phe Thr Trp Cys His Asn Cys Arg His Gly
      355          360          365
Gly His Ala Gly His Met Leu Ser Trp Phe Arg Asp His Ala Glu Cys
      370          375          380
Pro Val Ser Ala Cys Thr Cys Lys Cys Met Gln Leu Asp Thr Thr Gly

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385 390 395 400
 Asn Leu Val Pro Ala Glu Thr Val Gln Pro
 405 410

<210> 6149
 <211> 1949
 <212> DNA
 <213> Homo sapiens

<400> 6149
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 120
 agacagtcct cgtcagcact gactttcagc tatggaatcg cagacggttg atgatgaagc
 180
 gccggccgtg taaatgaaga tcgggtgagg agcaggacga tgcccaaggg tgggtgccct
 240
 aaagcaccac agcaggaaga gcttccccctc agcagcgaca tgggtggagaa gcagactggg
 300
 aaaaaggata aagataaagt ttctctaacc aagaccccaa aactggagcg tggcgatggc
 360
 gggaaggagg tgaggagcgc agccagcaag cggaagctgc ccttcaccgc gggcgccaat
 420
 ggggagcaga aggactcgga cacagagaag cagggccctg agcgggaagag gattaagaag
 480
 gagcctgtca cccggaaggc cgggctgctg tttggcatgg ggctgtctgg aatccgagcc
 540
 ggctaccccc tctccgagcg ccagcaggtg gcccttctca tgcagatgac ggccgaggag
 600
 tctgccaaaca gccagtgga cacaacacca aagcaccctt ccaggtctac agtgtgtcag
 660
 aaggaacgc ccaactctgc ctcaaaaacc aaagataaac tgaacaagag aaacgagcgt
 720
 ggagagaccc gcctgcaccg agccgccatc cgcggggacg cccggcgcat caaagagctc
 780
 atcagcgagg gggcagacgt caacgtcaag gacttcgcag gctggacggc gctgcacgag
 840
 gcctgtaacc ggggctacta cgacgtcgcg aagcagctgc tggctgcagg tgcggagggtg
 900
 aacaccaagg gcctagatga cgacacgcct ttgcacgacg ctgccaacaa cgggcactac
 960
 aaggtggtga agctgctgct gcggtacgga gggaaccgc agcagagcaa caggaaaggc
 1020
 gagcgccgc tgaaagtggc caactcccc acgatggtga acctcctgtt aggcaaaggc
 1080
 acttacactt ccagcgagga gagctcgacg gagagctcag aagaggaaga cgcaccatcc
 1140
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 1200
 aagcacaagg ccaagaaccc agagccacag aaggccacgg ccccgctcaa ggacgagtat
 1260
 gagtttgatg aggacgacga gcaggacagg gttcctccgg tggacgacaa gcacctattg
 1320

aaaaaggact acagaaaaga aacgaaatcc aatagtttta tctctatacc caaaatggag
 1380
 gttaaaagt acactaaaaa taacacgatt gcaccaaaga aagcgtecca tcgtatcctg
 1440
 tcagacacgt cggacgagga ggacgcgagt gtcaccgtgg ggacaggaga gaagctgaga
 1500
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 1560
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 1620
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 1680
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 1740
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 1800
 gctctgccgc ccagaagcag aaccccgagc acacagacca gcacaccaag cactggcgga
 1860
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 1920
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 1949

<210> 6150

<211> 508

<212> PRT

<213> Homo sapiens

<400> 6150

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Leu	Ser	Ser	Asp	Met	Val	Glu	Lys	Gln	Thr	Gly	Lys	Lys	Asp	Lys	Asp
			20					25					30		
Lys	Val	Ser	Leu	Thr	Lys	Thr	Pro	Lys	Leu	Glu	Arg	Gly	Asp	Gly	Gly
		35					40					45			
Lys	Glu	Val	Arg	Glu	Arg	Ala	Ser	Lys	Arg	Lys	Leu	Pro	Phe	Thr	Ala
		50				55					60				
Gly	Ala	Asn	Gly	Glu	Gln	Lys	Asp	Ser	Asp	Thr	Glu	Lys	Gln	Gly	Pro
65					70					75				80	
Glu	Arg	Lys	Arg	Ile	Lys	Lys	Glu	Pro	Val	Thr	Arg	Lys	Ala	Gly	Leu
				85					90					95	
Leu	Phe	Gly	Met	Gly	Leu	Ser	Gly	Ile	Arg	Ala	Gly	Tyr	Pro	Leu	Ser
			100					105					110		
Glu	Arg	Gln	Gln	Val	Ala	Leu	Leu	Met	Gln	Met	Thr	Ala	Glu	Glu	Ser
		115					120					125			
Ala	Asn	Ser	Pro	Val	Asp	Thr	Thr	Pro	Lys	His	Pro	Ser	Gln	Ser	Thr
		130					135					140			
Val	Cys	Gln	Lys	Gly	Thr	Pro	Asn	Ser	Ala	Ser	Lys	Thr	Lys	Asp	Lys
145					150					155				160	
Leu	Asn	Lys	Arg	Asn	Glu	Arg	Gly	Glu	Thr	Arg	Leu	His	Arg	Ala	Ala
				165					170					175	
Ile	Arg	Gly	Asp	Ala	Arg	Arg	Ile	Lys	Glu	Leu	Ile	Ser	Glu	Gly	Ala
			180					185					190		
Asp	Val	Asn	Val	Lys	Asp	Phe	Ala	Gly	Trp	Thr	Ala	Leu	His	Glu	Ala

```

      195              200              205
Cys Asn Arg Gly Tyr Tyr Asp Val Ala Lys Gln Leu Leu Ala Ala Gly
      210              215              220
Ala Glu Val Asn Thr Lys Gly Leu Asp Asp Asp Thr Pro Leu His Asp
225              230              235              240
Ala Ala Asn Asn Gly His Tyr Lys Val Val Lys Leu Leu Leu Arg Tyr
      245              250              255
Gly Gly Asn Pro Gln Gln Ser Asn Arg Lys Gly Glu Thr Pro Leu Lys
      260              265              270
Val Ala Asn Ser Pro Thr Met Val Asn Leu Leu Leu Gly Lys Gly Thr
      275              280              285
Tyr Thr Ser Ser Glu Glu Ser Ser Thr Glu Ser Ser Glu Glu Asp
      290              295              300
Ala Pro Ser Phe Ala Pro Ser Ser Ser Val Asp Gly Asn Asn Thr Asp
305              310              315              320
Ser Glu Phe Glu Lys Gly Leu Lys His Lys Ala Lys Asn Pro Glu Pro
      325              330              335
Gln Lys Ala Thr Ala Pro Val Lys Asp Glu Tyr Glu Phe Asp Glu Asp
      340              345              350
Asp Glu Gln Asp Arg Val Pro Pro Val Asp Asp Lys His Leu Leu Lys
      355              360              365
Lys Asp Tyr Arg Lys Glu Thr Lys Ser Asn Ser Phe Ile Ser Ile Pro
      370              375              380
Lys Met Glu Val Lys Ser Tyr Thr Lys Asn Asn Thr Ile Ala Pro Lys
385              390              395              400
Lys Ala Ser His Arg Ile Leu Ser Asp Thr Ser Asp Glu Glu Asp Ala
      405              410              415
Ser Val Thr Val Gly Thr Gly Glu Lys Leu Arg Leu Ser Ala His Thr
      420              425              430
Ile Leu Pro Gly Ser Lys Thr Arg Glu Pro Ser Asn Ala Lys Gln Gln
      435              440              445
Lys Glu Lys Asn Lys Val Lys Lys Lys Arg Lys Lys Glu Thr Lys Gly
      450              455              460
Arg Glu Val Arg Phe Gly Lys Arg Ser Xaa Ser Ser Ala Pro Arg Ser
465              470              475              480
Arg Arg Ala Ser Pro Gln Arg Val Gly Arg Met Thr Gly Thr Leu Trp
      485              490              495
Gly Ala Leu Ala Ala Ser Arg Gly Pro Arg Trp Cys
      500              505

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<210> 6151

<211> 648

<212> DNA

<213> Homo sapiens

<400> 6151

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60

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```

120

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gtggaggtca ccttctggta gacggagacc cgcttttcag actctgtggc gcagcaggcg

```

180

```

ggccaggaac atttgggcca ctattgctct tagccctgcc gcgcctgact ttctctctc

```

240

tacttttccctt	ccgaccgtag	ggacaagtgt	ggggatccgc	tttgggctcc	aaggccctgc
300					
ccgcactggc	agcaccaagc	gggtgtagaa	tgactggaag	gagcagggaa	ggaagatggg
360					
tgteaactgt	cccggccagt	ggctgcgtgc	atgtgtgtgt	gaacagggaa	aaggccaccc
420					
tctcccatgt	ttctcccgtc	tcctcggttc	tcctcggaga	cccgcagggc	tgcccgaggt
480					
agctccgagt	tgccctgggt	cgctggggct	tggtccgcct	cctcctccgc	tagtccgctc
540					
ccgcgttcca	cagcgccccg	ccgctcggtg	tgcacgcact	gcggcttaac	ccagccgaca
600					
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648					

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<210> 6152
<211> 130
<212> PRT
<213> Homo sapiens
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<400> 6152
Met Arg Thr Lys Pro Gln Arg Pro Arg Ala Thr Arg Ser Tyr Leu Gly
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Gln Pro Cys Gly Ser Pro Arg Arg Thr Glu Glu Thr Gly Glu Thr Trp
  20                25                30
Glu Arg Val Ala Phe Ser Leu Phe Thr His Thr Cys Thr Gln Pro Leu
  35                40                45
Ala Gly Thr Val Asp Thr His Leu Pro Ser Leu Leu Leu Pro Val Ile
  50                55                60
Leu His Pro Leu Gly Ala Ala Ser Ala Gly Arg Ala Leu Glu Pro Lys
  65                70                75                80
Ala Asp Pro His Thr Cys Pro Tyr Gly Arg Lys Glu Ser Arg Gly Glu
  85                90                95
Lys Val Arg Arg Gly Arg Ala Lys Ser Asn Ser Gly Pro Asn Val Pro
  100                105                110
Gly Pro Pro Ala Ala Pro Gln Ser Leu Lys Ser Gly Ser Pro Ser Thr
  115                120                125
Arg Arg
  130

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<210> 6153
<211> 1810
<212> DNA
<213> Homo sapiens
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<400> 6153
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gactcatgcc tcatggtctg gcacatgaag ctgcagtcac gcgcctaccg cttcactggc
120
cacaaggatg ccgtcacctg tgtgaacttc tctccttcgg gacacctgct tgcttcgggc
180
tcccagagaca agactgtccg catctgggta cccaatgtca aaggtagatc cactgtgttt
240
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cgtgcacaca cagccacagt gaggagtgtc cacttctgca gtgatggcca gtccttcgtg
300
acagcctctg acgacaagac agtcaaagtg tgggcaactc atcgccagaa attcctgttc
360
tccttgagcc agcatatcaa ctgggtccgc tgtgccaaagt tctccccga cgggcggctc
420
atcgtgtctg ccagtgatga caagactgtt aagctgtggg acaagagcag ccgggaatgt
480
gtccactcgt attgtgagca tggcggcctt gtcacctatg tggacttcca cccagtggg
540
acgtgcattg ccgctgcccg catggacaac acagtgaagg tgtgggacgt gcggactcac
600
cggctgtctg agcattatca gttgcacagt gcagcagtga acgggctctc tttccacccg
660
tcgggaaact acctgatcac agcctccagt gactcaacct tgaagatcct ggacctgatg
720
gagggccggc tgctctacac actccacggg catcagggac cagccaccac tgttgccctt
780
tcaagaacgg gggagtattt tgcttctgga ggctctgatg aacaagtgat ggtttggag
840
agtaactttg atattgttga tcatggagaa gtcacgaaag tgccgaggcc ccagccaca
900
ctggccagct ccatggggaa tctgccagaa gtggacttcc ctgtccccc aggcagaggc
960
tggagtgtgg agtctgtgca gagccagccc caggagcccg tgagtgtgcc ccagacactg
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tatctgcacc aggaggtctt ccacctggca gccagaggtc ccagtgggc cgggctcaca
1380
caciaaatgat gcttcagacc cgaatgagag gaccacattt tgcttaattg aaaggagcca
1440
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1500
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1560
gccatggtgt agaaattgat tgcacattga ttggatgagc cgggggtttt ctctaaatct
1620
gactaaaggc ccaaagtggg cccatctgag tcaggtttgt tgagaacaag ccctctcaag
1680
tgggtgggtg cttttcagtg gccctgattt ctgttcaca cgtgttcact ggagccagg
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aaaaaaaaa
1810

<210> 6154

<211> 388

<212> PRT

<213> Homo sapiens

<400> 6154

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Asp Ala Val Thr Cys Val Asp Phe Ser Ile Asn Thr Lys Gln Leu Ala
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Ser Gly Xaa Met Asp Ser Cys Leu Met Val Trp His Met Lys Leu Gln
          20          25          30
Ser Arg Ala Tyr Arg Phe Thr Gly His Lys Asp Ala Val Thr Cys Val
          35          40          45
Asn Phe Ser Pro Ser Gly His Leu Leu Ala Ser Gly Ser Arg Asp Lys
          50          55          60
Thr Val Arg Ile Trp Val Pro Asn Val Lys Gly Glu Ser Thr Val Phe
65          70          75          80
Arg Ala His Thr Ala Thr Val Arg Ser Val His Phe Cys Ser Asp Gly
          85          90          95
Gln Ser Phe Val Thr Ala Ser Asp Asp Lys Thr Val Lys Val Trp Ala
          100          105          110
Thr His Arg Gln Lys Phe Leu Phe Ser Leu Ser Gln His Ile Asn Trp
          115          120          125
Val Arg Cys Ala Lys Phe Ser Pro Asp Gly Arg Leu Ile Val Ser Ala
          130          135          140
Ser Asp Asp Lys Thr Val Lys Leu Trp Asp Lys Ser Ser Arg Glu Cys
145          150          155          160
Val His Ser Tyr Cys Glu His Gly Gly Phe Val Thr Tyr Val Asp Phe
          165          170          175
His Pro Ser Gly Thr Cys Ile Ala Ala Ala Gly Met Asp Asn Thr Val
          180          185          190
Lys Val Trp Asp Val Arg Thr His Arg Leu Leu Gln His Tyr Gln Leu
          195          200          205
His Ser Ala Ala Val Asn Gly Leu Ser Phe His Pro Ser Gly Asn Tyr
          210          215          220
Leu Ile Thr Ala Ser Ser Asp Ser Thr Leu Lys Ile Leu Asp Leu Met
225          230          235          240
Glu Gly Arg Leu Leu Tyr Thr Leu His Gly His Gln Gly Pro Ala Thr
          245          250          255
Thr Val Ala Phe Ser Arg Thr Gly Glu Tyr Phe Ala Ser Gly Gly Ser
          260          265          270
Asp Glu Gln Val Met Val Trp Lys Ser Asn Phe Asp Ile Val Asp His
          275          280          285
Gly Glu Val Thr Lys Val Pro Arg Pro Pro Ala Thr Leu Ala Ser Ser
          290          295          300
Met Gly Asn Leu Pro Glu Val Asp Phe Pro Val Pro Pro Gly Arg Gly
305          310          315          320
Trp Ser Val Glu Ser Val Gln Ser Gln Pro Gln Glu Pro Val Ser Val
          325          330          335
Pro Gln Thr Leu Thr Ser Thr Leu Glu His Ile Val Gly Gln Leu Asp
          340          345          350
Val Leu Thr Gln Thr Val Ser Ile Leu Glu Gln Arg Leu Thr Leu Thr
          355          360          365
Glu Asp Lys Leu Lys Gln Cys Leu Glu Asn Gln Gln Leu Ile Met Gln

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370 375 380
 Arg Ala Thr Pro
 385

 <210> 6155
 <211> 995
 <212> DNA
 <213> Homo sapiens

 <400> 6155
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 120
 aataacagcg atttattatt aaggaaatga tacgcttttg tccattcaa ataatgtttt
 180
 tattccccctt ttctttattc ttgggaggtt cctattgttg tgccaggctg ttttactga
 240
 acgattttta aaggtattca ccagtcaccac gtgtgaccgg ttgcattttt actgtgcagg
 300
 accatcgtga agcctgtggc caaagagttt gatccagaca tggctcttagt atctgctgga
 360
 tttgatgcat tggaaggcca cccccctct ctaggagggt acaaagtgaac ggcaaaatgt
 420
 tttggtcatt tgacgaagca attgatgaca ttggctgatg gacgtgtggt gttggctcta
 480
 gaaggaggac atgatctcac agccatctgt gatgcatcag aagcctgtgt aaatgccctt
 540
 ctaggaaatg agctggagcc acttcagaa gatattctcc accaaagccc gaatatgaat
 600
 gctgttattt ctttacagaa gatcattgaa attcaaaaac tgctggtgag cctatggaag
 660
 aggagccagc cttgtgaagt gccaagtccc cctctgatat ttctgtgtg tgacatcatt
 720
 gtgtatcccc ccaccccagt accctcagac atgtcttgtc tgctgcctgg gtggcacaga
 780
 ttcaatggaa cataaacact gggcacaaaa ttctgaacag cagcttcact tgttctttgg
 840
 atggacttga aagggcatta aagattcctt aaacgtaacc gctgtgattc tagagttaca
 900
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 960
 cctagacacc aagtttgaac tagaaacatt cagta
 995

 <210> 6156
 <211> 164
 <212> PRT
 <213> Homo sapiens

 <400> 6156
 Thr Ile Val Lys Pro Val Ala Lys Glu Phe Asp Pro Asp Met Val Leu
 1 5 10 15
 Val Ser Ala Gly Phe Asp Ala Leu Glu Gly His Thr Pro Pro Leu Gly

```

<400> 6157
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120
ttgaacttca gtttgactaa ctatgaaact tttaaactgct attctttctc aactttcctt
180
ttttctgcag gatctggcga catggccaga aaggctctca agcttgcttc gtggaccaga
240
atggctcttg ctgcctctgg catctacttc tacagtaaca agtacttggga ccctaattgac
300
tttggcgctg tcagggctggg cagagcagtt gctacgacgg ctgtcatcag ttacgactac
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420
atccatgatt tgttccagag cttcgatgac acccctctgg ggacggcctc cctggcccag
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720
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780
ctgatggagt ttgtggatgg cgggcaggtc aatgacagag actacatgga gaggaacaag
840

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 aatggcttcg tgcactgcga tccccacccc ggcaacgtac tggcgcgaa gcaccccggc
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 1020
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 1080
 aaggagtaca gccagcgact gggagccggg gatctctacc ccttgtttgc ctgcatgctg
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 1320
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 1860
 taacccttcc cattgtcaag atgtgccag ggtgccactg ggggcacact gaactttag
 1920
 ggagtgtgat tttgttgag gtgcacatgg tctctgaatt tgacagagaa caccttcct
 1980
 ttccttgcca tgtaccctc cagaggaagt cacacctcag cgagggtggt tggcatctgg
 2040
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<210> 6158

<211> 455

<212> PRT

<213> Homo sapiens

<400> 6158

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			20					25					30			
Asp	Phe	Gly	Ala	Val	Arg	Val	Gly	Arg	Ala	Val	Ala	Thr	Thr	Ala	Val	
		35					40					45				
Ile	Ser	Tyr	Asp	Tyr	Leu	Thr	Ser	Leu	Lys	Ser	Val	Pro	Tyr	Gly	Ser	
	50					55					60					
Glu	Glu	Tyr	Leu	Gln	Leu	Arg	Ser	Lys	Ile	His	Asp	Leu	Phe	Gln	Ser	
65					70					75					80	
Phe	Asp	Asp	Thr	Pro	Leu	Gly	Thr	Ala	Ser	Leu	Ala	Gln	Val	His	Lys	
				85					90					95		
Ala	Val	Leu	His	Asp	Gly	Arg	Thr	Val	Ala	Val	Lys	Val	Gln	His	Pro	
			100					105					110			
Lys	Val	Arg	Ala	Gln	Ser	Ser	Lys	Asp	Ile	Leu	Leu	Met	Glu	Val	Leu	
		115					120					125				
Val	Leu	Ala	Val	Lys	Gln	Leu	Phe	Pro	Glu	Phe	Glu	Phe	Met	Trp	Leu	
	130					135					140					
Val	Asp	Glu	Ala	Lys	Lys	Asn	Leu	Pro	Leu	Glu	Leu	Asp	Phe	Leu	Asn	
145					150					155					160	
Glu	Gly	Arg	Asn	Ala	Glu	Lys	Val	Ser	Gln	Met	Leu	Arg	His	Phe	Asp	
			165						170					175		
Phe	Leu	Lys	Val	Pro	Arg	Ile	His	Trp	Asp	Leu	Ser	Thr	Glu	Arg	Val	
			180					185					190			
Leu	Leu	Met	Glu	Phe	Val	Asp	Gly	Gly	Gln	Val	Asn	Asp	Arg	Asp	Tyr	
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Pro	His	Pro	Gly	Asn	Val	Leu	Val	Arg	Lys	His	Pro	Gly	Thr	Gly	Lys	
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Ala	Glu	Ile	Val	Leu	Leu	Asp	His	Gly	Leu	Tyr	Gln	Met	Leu	Thr	Glu	
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		275					280					285				
Asp	Met	Lys	Arg	Val	Lys	Glu	Tyr	Ser	Gln	Arg	Leu	Gly	Ala	Gly	Asp	
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Leu	Tyr	Pro	Leu	Phe	Ala	Cys	Met	Leu	Thr	Ala	Arg	Ser	Trp	Asp	Ser	
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Val	Asn	Arg	Gly	Ile	Ser	Gln	Ala	Pro	Val	Thr	Ala	Thr	Glu	Asp	Leu	
			325						330					335		
Glu	Ile	Arg	Asn	Asn	Ala	Ala	Asn	Tyr	Leu	Pro	Gln	Ile	Ser	His	Leu	
			340					345					350			
Leu	Asn	His	Val	Pro	Arg	Gln	Met	Leu	Leu	Ile	Leu	Lys	Thr	Asn	Asp	
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455

<210> 6159

<211> 4310

<212> DNA

<213> Homo sapiens

<400> 6159

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<210> 6160

<211> 551

<212> PRT

<213> Homo sapiens

<400> 6160

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 35 40 45
 Ser Val Leu Ile Gln Phe Ala Thr Pro Asn Asp Phe Cys Ser Phe Tyr
 50 55 60
 Asn Ile Leu Lys Thr Cys Arg Gly His Thr Leu Glu Arg Ser Val Phe
 65 70 75 80
 Ser Glu Arg Thr Glu Glu Ser Ser Ala Val Gln Tyr Phe Gln Phe Tyr
 85 90 95
 Gly Tyr Leu Ser Gln Gln Gln Asn Met Met Gln Asp Tyr Val Arg Thr
 100 105 110
 Gly Thr Tyr Gln Arg Ala Ile Leu Gln Asn His Thr Asp Phe Lys Asp
 115 120 125
 Lys Ile Val Leu Asp Val Gly Cys Gly Ser Gly Ile Leu Ser Phe Phe
 130 135 140
 Ala Ala Gln Ala Gly Ala Arg Lys Ile Tyr Ala Val Glu Ala Ser Thr
 145 150 155 160
 Met Ala Gln His Ala Glu Val Leu Val Lys Ser Asn Asn Leu Thr Asp
 165 170 175
 Arg Ile Val Val Ile Pro Gly Lys Val Glu Glu Val Ser Leu Pro Glu
 180 185 190
 Gln Val Asp Ile Ile Ile Ser Glu Pro Met Gly Tyr Met Leu Phe Asn
 195 200 205
 Glu Arg Met Leu Glu Ser Tyr Leu His Ala Lys Lys Tyr Leu Lys Pro
 210 215 220
 Ser Gly Asn Met Phe Pro Thr Ile Gly Asp Val His Leu Ala Pro Phe
 225 230 235 240
 Thr Asp Glu Gln Leu Tyr Met Glu Gln Phe Thr Lys Ala Asn Phe Trp
 245 250 255
 Tyr Gln Pro Ser Phe His Gly Val Asp Leu Ser Ala Leu Arg Gly Ala
 260 265 270
 Ala Val Asp Glu Tyr Phe Arg Gln Pro Val Val Asp Thr Phe Asp Ile
 275 280 285
 Arg Ile Leu Met Ala Lys Ser Val Lys Tyr Thr Val Asn Phe Leu Glu
 290 295 300
 Ala Lys Glu Gly Asp Leu His Arg Ile Glu Ile Pro Phe Lys Phe His
 305 310 315 320
 Met Leu His Ser Gly Leu Val His Gly Leu Ala Phe Trp Phe Asp Val
 325 330 335
 Ala Phe Ile Gly Ser Ile Met Thr Val Trp Leu Ser Thr Ala Pro Thr
 340 345 350
 Glu Pro Leu Thr His Trp Tyr Gln Val Arg Cys Leu Phe Gln Ser Pro
 355 360 365
 Leu Phe Ala Lys Ala Gly Asp Thr Leu Ser Gly Thr Cys Leu Leu Ile
 370 375 380
 Ala Asn Lys Arg Gln Ser Tyr Asp Ile Ser Ile Val Ala Gln Val Asp
 385 390 395 400
 Gln Thr Gly Ser Lys Ser Ser Asn Leu Leu Asp Leu Lys Asn Pro Phe
 405 410 415
 Phe Arg Tyr Thr Gly Thr Thr Pro Ser Pro Pro Pro Gly Ser His Tyr
 420 425 430
 Thr Ser Pro Ser Glu Asn Met Trp Asn Thr Gly Ser Thr Tyr Asn Leu
 435 440 445
 Ser Ser Gly Met Ala Val Ala Gly Met Pro Thr Ala Tyr Asp Leu Ser

450 455 460
 Ser Val Ile Ala Ser Gly Ser Ser Val Gly His Asn Asn Leu Ile Pro
 465 470 475 480
 Leu Ala Asn Thr Gly Ile Val Asn His Thr His Ser Arg Met Gly Ser
 485 490 495
 Ile Met Ser Thr Gly Ile Val Gln Gly Ser Ser Gly Ala Gln Gly Ser
 500 505 510
 Gly Gly Gly Ser Thr Ser Ala His Tyr Ala Val Asn Ser Gln Phe Thr
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 Asn Thr Met His Tyr Gly Ser
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<210> 6161

<211> 1489

<212> DNA

<213> Homo sapiens

<400> 6161

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 120
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 180
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 240
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 360
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 480
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 1020

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 1320
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<210> 6162

<211> 58

<212> PRT

<213> Homo sapiens

<400> 6162

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			20				25						30		
Arg	Lys	Gly	Thr	Glu	Pro	Gly	Val	Val	Ala	His	Ala	Cys	Asn	Pro	Xaa
		35				40						45			
Thr	Leu	Gly	Gly	Arg	Ser	Lys	Glu	Ile	Thr						
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<210> 6163

<211> 713

<212> DNA

<213> Homo sapiens

<400> 6163

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 120
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 180
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 300
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 360
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 420
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 480

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<210> 6164

<211> 120

<212> PRT

<213> Homo sapiens

<400> 6164

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			20					25					30		
Pro	Leu	Pro	Gly	Lys	Ala	Gly	Leu	Ala	Leu	Leu	Lys	Pro	Gln	Ser	Arg
		35					40					45			
Ser	Asp	Gly	Tyr	Arg	Tyr	Leu	Gly	Lys	Asp	Thr	Val	Asp	Gly	Leu	Asp
	50					55					60				
Ser	Ser	Leu	Leu	Lys	Cys	Thr	Arg	Arg	Cys	Met	Arg	Gly	Phe	Arg	Leu
65					70				75					80	
Pro	Glu	Lys	Gln	Pro	Ser	Lys	Thr	Arg	Val	Ser	Phe	Leu	Glu	Ser	Lys
			85						90				95		
Arg	Lys	Glu	Gly	Ser	Gly	Trp	Leu	His	Trp	Ser	Val	Thr	Arg	Ser	Gly
		100						105					110		
Ala	Phe	Arg	Leu	Lys	Val	Thr	Val								
		115					120								

<210> 6165

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 6165

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<210> 6166

<211> 239

<212> PRT

<213> Homo sapiens

<400> 6166

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			20					25				30			
Gly	Gly	Pro	Thr	Pro	Gln	Glu	Ala	Ile	Gln	Arg	Leu	Arg	Asp	Thr	Glu
			35				40					45			
Glu	Met	Leu	Ser	Lys	Lys	Gln	Glu	Phe	Leu	Glu	Lys	Lys	Ile	Glu	Gln
			50			55					60				
Glu	Leu	Thr	Ala	Ala	Lys	Lys	His	Gly	Thr	Lys	Asn	Lys	Arg	Ala	Ala
65					70				75					80	
Leu	Gln	Ala	Leu	Lys	Arg	Lys	Lys	Arg	Tyr	Glu	Lys	Gln	Leu	Ala	Gln
			85					90				95			
Ile	Asp	Gly	Thr	Leu	Ser	Thr	Ile	Glu	Phe	Gln	Arg	Glu	Ala	Leu	Glu
			100				105					110			
Asn	Ala	Asn	Thr	Asn	Thr	Glu	Val	Leu	Lys	Asn	Met	Gly	Tyr	Ala	Ala
		115			120						125				
Lys	Ala	Met	Lys	Ala	Ala	His	Asp	Asn	Met	Asp	Ile	Asp	Lys	Val	Asp
		130			135					140					
Glu	Leu	Met	Gln	Asp	Ile	Ala	Asp	Gln	Gln	Glu	Leu	Ala	Glu	Glu	Ile
145				150					155				160		
Ser	Thr	Ala	Ile	Ser	Lys	Pro	Val	Gly	Phe	Gly	Glu	Glu	Phe	Asp	Glu
			165					170					175		
Asp	Glu	Leu	Met	Ala	Glu	Leu	Glu	Glu	Leu	Glu	Gln	Glu	Glu	Leu	Asp
		180				185					190				
Lys	Asn	Leu	Leu	Glu	Ile	Ser	Gly	Pro	Glu	Thr	Val	Pro	Leu	Pro	Asn
		195				200					205				
Val	Pro	Ser	Ile	Ala	Leu	Pro	Ser	Lys	Pro	Ala	Lys	Lys	Lys	Glu	Glu
		210			215					220					
Glu	Asp	Asp	Asp	Met	Lys	Glu	Leu	Glu	Asn	Trp	Ala	Gly	Ser	Met	

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230

235

<210> 6167

<211> 1220

<212> DNA

<213> Homo sapiens

<400> 6167

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240
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300
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360
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420
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480
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720
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780
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840
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900
ctctgagcct ctatctgcat taccattcac tgggcagcag tcttttgagc caagtggcaa
960
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1020
atagaacagc tcaatcagtg tttgatccaa cacttccatc tcattaagac aagtttgatt
1080
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1140
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1220

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<210> 6168

<211> 90

<212> PRT

<213> Homo sapiens

<400> 6168

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Ala Lys Trp Gln Ile Trp Thr Val Ser Ile Asp Ala Asp Glu Pro His
 1             5             10             15
Pro Gly Thr Gly Glu Val Glu Asp Ile Glu Gln Leu Asn Gln Cys Leu
      20             25             30
Ile Gln His Phe His Leu Ile Lys Thr Ser Leu Ile Phe Leu Cys Phe
      35             40             45
Leu Phe His Gly Ile His Glu Asn Leu Leu Thr Val Gly Val Ser Lys
      50             55             60
Glu Ala Tyr Leu Met Thr Ser Val Asn Gly Lys Asn Lys Thr Lys Met
65             70             75             80
Leu Tyr Gly Gln Ser His Lys Gly Lys Asp
      85             90

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<210> 6169

<211> 720

<212> DNA

<213> Homo sapiens

<400> 6169

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tgagggcttc gatcccttct ctgatttgct gtcagccatg aacggatgga tgtgatgcct
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gctagccaaa aggcttcctt ctgtgtgttg cagtctctgtg gcattatgca tgccccctcc
120
cagtgacccc aggcttttta tggctgtgaa acacgttaaa atttcagggg aagacgtgac
180
cttttgaggt gactataact gaagattgct ttacagaagc ccaaaaaggt tttttgagtc
240
atgatgcaag aatctgggac tgagacaaaa agtaacgggt cagccatcca gaatgggtcg
300
ggcggcagca accacttact agagtgcggc ggtcttcggg aggggcgggc caacggagag
360
acgccggccg tggacatcgg ggcagctgac ctgcgccacg cccagcagca gcagcaacag
420
tggcatctca taaaccatca gccctctagg agtcccagca gttggcttaa gagactaatt
480
tcaagccctt gggagttgga agtcctgcag gtcccttggt gggagcagtt gctgagacga
540
agatgagtgg acctgtgtgt cagcctaacc cttccccatt ttgaataaaa ttattctttg
600
gagaaatggg tcccactgct ttcattgcaa aataaaaatt aaacgaaaaa cagcttaagc
660
ctgtgaagaa ggaaatactg agctagccag caaaagagag aaagaagagg aggggagagg
720

```

<210> 6170

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6170

```

Met Met Gln Glu Ser Gly Thr Glu Thr Lys Ser Asn Gly Ser Ala Ile

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```

      1             5             10             15
Gln Asn Gly Ser Gly Gly Ser Asn His Leu Leu Glu Cys Gly Gly Leu
      20             25             30
Arg Glu Gly Arg Ser Asn Gly Glu Thr Pro Ala Val Asp Ile Gly Ala
      35             40             45
Ala Asp Leu Ala His Ala Gln Gln Gln Gln Gln Trp His Leu Ile
      50             55             60
Asn His Gln Pro Ser Arg Ser Pro Ser Ser Trp Leu Lys Arg Leu Ile
65             70             75             80
Ser Ser Pro Trp Glu Leu Glu Val Leu Gln Val Pro Cys Gly Glu Gln
      85             90             95
Leu Leu Arg Arg Arg
      100

```

<210> 6171

<211> 1130

<212> DNA

<213> Homo sapiens

<400> 6171

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agagaaacgc aggttgctgc gtggttaaaa aaaatatattg gagatcatcc tattccacag
120
tatgaggtga acccacggac cacagagatt ttacatcacc tttcagaacg caacagggtc
180
cgggacaggg atgtctacct ggtaatagag gacttgaagc agaaagcaag tgaatacgag
240
tcagaagcca agtatcttca agaccttctc atggagagtg tgaatttttc ccccgccaat
300
ctctctagca ctggttccag gtatctgaat gctttggttg acagtgcggt ggcccttgaa
360
acaaaggata cctcgctagc tagttttatc cctgcagtga atgatttgac ctctgatctc
420
tttcgtacca aatccaaaag tgaagaaatc aagattgaac tggaaaaact tgaaaaaat
480
ttaactgcaa ctttagtatt agaaaaatgt ctacaagagg atgtcaagaa agcagagttg
540
catctgtcta cagaaagggc caaagttgat aatcgctgctc agaacatgga ctttctaaaa
600
gcaaagtcag aggaattcag atttgaatc aaggctgcag aggagcaact ttcagccaga
660
ggcatggatg cttctctgtc tcatcagtc ttagtagcac tatcagagaa actggcaaga
720
ttaagcaac agactatacc tttgaagaaa aaattggagt cctattttaga cttaatgccg
780
aatccgtctc ttgctcaagt gaaaattgaa gaagcaaagc gagaactaga tagcattgaa
840
gctgaactta caagaagagt agacatgatg gaactgtgac aaaagccaaa taaacatcct
900
tttccctaac aaagtaaatt gaataggact ttacagagtt ctttttctc ttggcatttc
960
ctaataacaa aactttctgt gttcttagat tacagaatat cataattgat agaatatggg
1020

```


ttcttactgt gtgttgccatt tttgtgcca aatacatagt ttccatatta aaaagccttt
1080

tctcttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
1130

<210> 6172

<211> 292

<212> PRT

<213> Homo sapiens

<400> 6172

Xaa	Pro	Leu	Gly	Val	Pro	Ser	Lys	Val	Ala	Gly	Ala	Ala	Ala	Met	Glu
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Pro	Gln	Glu	Glu	Arg	Glu	Thr	Gln	Val	Ala	Ala	Trp	Leu	Lys	Lys	Ile
		20					25						30		
Phe	Gly	Asp	His	Pro	Ile	Pro	Gln	Tyr	Glu	Val	Asn	Pro	Arg	Thr	Thr
	35					40					45				
Glu	Ile	Leu	His	His	Leu	Ser	Glu	Arg	Asn	Arg	Val	Arg	Asp	Arg	Asp
	50					55					60				
Val	Tyr	Leu	Val	Ile	Glu	Asp	Leu	Lys	Gln	Lys	Ala	Ser	Glu	Tyr	Glu
65				70					75					80	
Ser	Glu	Ala	Lys	Tyr	Leu	Gln	Asp	Leu	Leu	Met	Glu	Ser	Val	Asn	Phe
		85						90						95	
Ser	Pro	Ala	Asn	Leu	Ser	Ser	Thr	Gly	Ser	Arg	Tyr	Leu	Asn	Ala	Leu
		100						105					110		
Val	Asp	Ser	Ala	Val	Ala	Leu	Glu	Thr	Lys	Asp	Thr	Ser	Leu	Ala	Ser
	115					120						125			
Phe	Ile	Pro	Ala	Val	Asn	Asp	Leu	Thr	Ser	Asp	Leu	Phe	Arg	Thr	Lys
	130					135					140				
Ser	Lys	Ser	Glu	Glu	Ile	Lys	Ile	Glu	Leu	Glu	Lys	Leu	Glu	Lys	Asn
145				150					155					160	
Leu	Thr	Ala	Thr	Leu	Val	Leu	Glu	Lys	Cys	Leu	Gln	Glu	Asp	Val	Lys
			165					170						175	
Lys	Ala	Glu	Leu	His	Leu	Ser	Thr	Glu	Arg	Ala	Lys	Val	Asp	Asn	Arg
		180						185					190		
Arg	Gln	Asn	Met	Asp	Phe	Leu	Lys	Ala	Lys	Ser	Glu	Glu	Phe	Arg	Phe
	195					200						205			
Gly	Ile	Lys	Ala	Ala	Glu	Glu	Gln	Leu	Ser	Ala	Arg	Gly	Met	Asp	Ala
	210					215					220				
Ser	Leu	Ser	His	Gln	Ser	Leu	Val	Ala	Leu	Ser	Glu	Lys	Leu	Ala	Arg
225				230					235					240	
Leu	Lys	Gln	Gln	Thr	Ile	Pro	Leu	Lys	Lys	Lys	Leu	Glu	Ser	Tyr	Leu
			245					250						255	
Asp	Leu	Met	Pro	Asn	Pro	Ser	Leu	Ala	Gln	Val	Lys	Ile	Glu	Glu	Ala
		260						265					270		
Lys	Arg	Glu	Leu	Asp	Ser	Ile	Glu	Ala	Glu	Leu	Thr	Arg	Arg	Val	Asp
	275						280					285			
Met	Met	Glu	Leu												
	290														

<210> 6173

<211> 1483

<212> DNA

<213> Homo sapiens

<400> 6173

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120
caaggcctgt tgatgcagcc atgggctgtg ctacagcttg cagagaactc cctcttggcc
180
aagggttttta tcaccaagca gggctatgcc ttgttggttt cagatcttca acagggtgtgg
240
catgaacagg tggacactag tgtggtcagc cagcgagcca aggagctgaa caagcggctc
300
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360
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420
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480
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540
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600
gactaccagg agagtggggc tacgctgatt cgagatcgat tgaagacaga accatttgaa
660
gaaaattcct tcttgaaca atttatgata gagaaactgc cagaggcatg cagcattggg
720
gatggaaagc cctttgtcat gaatctgcag gatctgtata tggcagtcac cacacaagag
780
gtccaagtgg gacagaagca tcaaggcgct ggagatcctc atacctcaaa cagtgcctcc
840
ctgcaaggaa tcgatagcca atgtgtaaac cagccagaac aactgggtctc ctgagcccca
900
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960
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1020
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1080
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1140
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1200
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1260
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1320
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1380
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1440
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1483

<210> 6174

<211> 299
 <212> PRT
 <213> Homo sapiens

<400> 6174

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Met Glu Glu Leu Glu Gln Gly Leu Leu Met Gln Pro Trp Ala Trp Leu
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Gln Leu Ala Glu Asn Ser Leu Leu Ala Lys Val Phe Ile Thr Lys Gln
 20          25          30
Gly Tyr Ala Leu Leu Val Ser Asp Leu Gln Gln Val Trp His Glu Gln
 35          40          45
Val Asp Thr Ser Val Val Ser Gln Arg Ala Lys Glu Leu Asn Lys Arg
 50          55          60
Leu Thr Ala Pro Pro Ala Ala Phe Leu Cys His Leu Asp Asn Leu Leu
 65          70          75          80
Arg Pro Leu Leu Lys Asp Ala Ala His Pro Ser Glu Ala Thr Phe Ser
 85          90          95
Cys Asp Cys Val Ala Asp Ala Leu Ile Leu Arg Val Arg Ser Glu Leu
 100         105         110
Ser Gly Leu Pro Phe Tyr Trp Asn Phe His Cys Met Leu Ala Ser Pro
 115         120         125
Ser Leu Val Ser Gln His Leu Ile Arg Pro Leu Met Gly Met Ser Leu
 130         135         140
Ala Leu Gln Cys Gln Val Arg Glu Leu Ala Thr Leu Leu His Met Lys
 145         150         155         160
Asp Leu Glu Ile Gln Asp Tyr Gln Glu Ser Gly Ala Thr Leu Ile Arg
 165         170         175
Asp Arg Leu Lys Thr Glu Pro Phe Glu Glu Asn Ser Phe Leu Glu Gln
 180         185         190
Phe Met Ile Glu Lys Leu Pro Glu Ala Cys Ser Ile Gly Asp Gly Lys
 195         200         205
Pro Phe Val Met Asn Leu Gln Asp Leu Tyr Met Ala Val Thr Thr Gln
 210         215         220
Glu Val Gln Val Gly Gln Lys His Gln Gly Ala Gly Asp Pro His Thr
 225         230         235         240
Ser Asn Ser Ala Ser Leu Gln Gly Ile Asp Ser Gln Cys Val Asn Gln
 245         250         255
Pro Glu Gln Leu Val Ser Ser Ala Pro Thr Leu Ser Ala Pro Glu Lys
 260         265         270
Glu Ser Thr Gly Thr Ser Gly Pro Leu Gln Arg Pro Gln Leu Ser Lys
 275         280         285
Val Lys Arg Lys Asn Pro Arg Gly Leu Phe Ser
 290         295

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<210> 6175
 <211> 349
 <212> DNA
 <213> Homo sapiens

<400> 6175

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aggactggga tttcaaataat gcgtgcatta gagaatgact ttttcaattc tcccccaaga
 120

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aaaactgttc agtttggtgg aactgtgaca gaagtcttgc tgaagtacaa aaagggtgaa
 180
 acaaatgact ttgagttggt gaagaaccag ctgtagatc cagacataaa gagattgcct
 240
 tggttgaata gaagtcaaac agtagtgga gagtatttgg cttttcttgg taatcttgta
 300
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 349

<210> 6176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 6176

Met	Arg	Ala	Leu	Glu	Asn	Asp	Phe	Phe	Asn	Ser	Pro	Pro	Arg	Lys	Thr
1				5					10					15	
Val	Gln	Phe	Gly	Gly	Thr	Val	Thr	Glu	Val	Leu	Leu	Lys	Tyr	Lys	Lys
			20					25					30		
Gly	Glu	Thr	Asn	Asp	Phe	Glu	Leu	Leu	Lys	Asn	Gln	Leu	Leu	Asp	Pro
			35				40					45			
Asp	Ile	Lys	Arg	Leu	Pro	Trp	Leu	Asn	Arg	Ser	Gln	Thr	Val	Val	Glu
	50					55					60				
Glu	Tyr	Leu	Ala	Phe	Leu	Gly	Asn	Leu	Val	Ser	Ala	Gln	Thr	Val	Phe
65					70					75					80
Leu	Arg	Pro	Cys	Leu	Ser	Met	Ile	Ala	Ser						
				85					90						

<210> 6177

<211> 1536

<212> DNA

<213> Homo sapiens

<400> 6177

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 tctgtaccca ttgaacaaca gctgtcatt tccccagcc ccagcccctg gcatccacct
 120
 ttctagcttt ctgtctctat ggggtacctca gtggagtcac tgggcgaatg ggccatgctg
 180
 tttgcccagtg gaggtctcca ggtgaaactc tatgacattg agcaacagca gataaggaac
 240
 gccctggaaa acatcagaaa ggagatgaag ttgctggagc aggcagggtc tctgaaaggc
 300
 tccctgagtg tggaagagca gctgtcactc atcagtgggt gtcccaatat ccaagaagca
 360
 gtagagggtg ccatgcacat tcaggaatgt gttccagaag atctagaact gaagaagaag
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 480
 tgtctcatgc cttccaagtt gtttgctggc ttggtccatg tgaagcaatg catcgtggct
 540
 catcctgtga atccgccata ctacatcccg ctggttgagc tgggtcccca cccggagagc
 600

gcccctacga cagtggacag aacccacgcc ctgatgaaga agattgganc agtgcccat
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 720
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 aatgcagaag gtatgttaag ctactgcgac agatacagcg aaggcataaa acatgtccta
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 aatgcagctt ccactcctct cattggaggc cctatttggg aacactgcaa gcccttaatc
 1140
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 1380
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 1440
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 1500
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 1536

<210> 6178

<211> 310

<212> PRT

<213> Homo sapiens

<400> 6178

Met	Gly	Thr	Ser	Val	Glu	Ser	Leu	Gly	Glu	Trp	Ala	Met	Leu	Phe	Ala
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Ser	Gly	Gly	Phe	Gln	Val	Lys	Leu	Tyr	Asp	Ile	Glu	Gln	Gln	Gln	Ile
			20					25					30		
Arg	Asn	Ala	Leu	Glu	Asn	Ile	Arg	Lys	Glu	Met	Lys	Leu	Leu	Glu	Gln
			35					40					45		
Ala	Gly	Ser	Leu	Lys	Gly	Ser	Leu	Ser	Val	Glu	Glu	Gln	Leu	Ser	Leu
			50					55				60			
Ile	Ser	Gly	Cys	Pro	Asn	Ile	Gln	Glu	Ala	Val	Glu	Gly	Ala	Met	His
65					70				75					80	
Ile	Gln	Glu	Cys	Val	Pro	Glu	Asp	Leu	Glu	Leu	Lys	Lys	Lys	Ile	Phe
				85					90					95	
Ala	Gln	Leu	Asp	Ser	Ile	Ile	Asp	Asp	Arg	Val	Ile	Leu	Ser	Ser	Ser
			100					105					110		
Thr	Ser	Cys	Leu	Met	Pro	Ser	Lys	Leu	Phe	Ala	Gly	Leu	Val	His	Val

115	120	125
Lys Gln Cys Ile Val Ala His Pro Val Asn Pro Pro Tyr Tyr Ile Pro		
130	135	140
Leu Val Glu Leu Val Pro His Pro Glu Thr Ala Pro Thr Thr Val Asp		
145	150	155
Arg Thr His Ala Leu Met Lys Lys Ile Gly Xaa Val Pro His Ala Ser		
165	170	175
Pro Glu Gly Gly Gly Arg Leu Arg Ser Glu Pro Pro Ala Ile Cys Asn		
180	185	190
His Gln Arg Gly Leu Ala Ala Ser Gly Gly Arg Asn Xaa Cys Leu Leu		
195	200	205
Val Thr Trp Xaa Leu Val Met Ser Glu Gly Leu Gly Met Arg Tyr Ala		
210	215	220
Phe Ile Gly Pro Leu Glu Thr Met His Leu Asn Ala Glu Gly Met Leu		
225	230	235
Ser Tyr Cys Asp Arg Tyr Ser Glu Gly Ile Lys His Val Leu Gln Thr		
245	250	255
Phe Gly Pro Ile Pro Glu Phe Ser Arg Ala Thr Ala Glu Lys Val Asn		
260	265	270
Gln Asp Met Cys Met Lys Val Pro Asp Asp Pro Glu His Leu Ala Ala		
275	280	285
Arg Arg Gln Trp Arg Asp Glu Cys Leu Met Arg Leu Ala Lys Leu Lys		
290	295	300
Ser Gln Val Gln Pro Gln		
305	310	

<210> 6179

<211> 2940

<212> DNA

<213> Homo sapiens

<400> 6179

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120
aagccataca ggctgtgaag gtccagtcct tccaaatgaa gagatgcctg gacaaaaaca
180
agcttatgga tgctctaaaa catgcttcta atatgcttgg tgaactccgg acttctatgt
240
tatcaccaaa gagttactat gaactttata tggccatttc tgatgaactg cactacttgg
300
aggntctacc tgacagatga gtttgctaaa ggaaggaaag tggcagatct ctacgaactt
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420
tatgtcaagt catttctca gtccaggaag gatattttga aagatttggt agaaatgtgc
480
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540
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600
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660

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cagcatcagg gacatagccg agatagagaa aaaagagaac gagaaagaca agaactgaga
720
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780
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1080
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1140
gccatgaaat gttaccctga tcgtgtggac tatgttgata aagttctaga aacaacagtg
1200
gagatattca ataagctcaa ccttgaacat attgctacca gtagtgagcgt ttcaaaggaa
1260
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1380
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<211> 751

<212> PRT

<213> Homo sapiens

<400> 6180

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<211> 1135

<212> DNA

<213> Homo sapiens

<400> 6181

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<213> Homo sapiens

<400> 6182

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<211> 2530

<212> DNA

<213> Homo sapiens

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<211> 308

<212> PRT

<213> Homo sapiens

<400> 6184

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          210          215          220
Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr Ser
225          230          235          240
Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr Phe
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<210> 6185

<211> 1231

<212> DNA

<213> Homo sapiens

<400> 6185

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<211> 909

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 6188

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<211> 576

<212> PRT

<213> Homo sapiens

<400> 6190

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Pro Gln Thr Phe Ala Gly Pro Ile Ile Gly Pro Gly Gly Thr Ala Ser		
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 6192

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610				615				620							
Glu	Glu	Glu	Glu	Glu	Asp	Val	Pro	Leu	Asp	Ser	Asp	Val	Glu	Gln	Ala
625				630				635				640			
Leu	Gln	Thr	Phe	Ala	Lys	Thr	Ser	Gly	Thr	Met	Asn	Asn	Tyr	Pro	Thr
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Trp	Arg	Arg	Thr	Leu	Leu	Arg	Arg	Ala	Lys	Glu	Glu	Glu	Met	Lys	Arg
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Phe	Cys	Lys	Ala	Gln	Thr	Ile	Gln	Arg	Arg	Leu	Asn	Glu	Ile	Glu	Ala
675				680				685							
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690				695				700							
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Ala	Glu	Leu	Met	Ile	Thr	Val	Gln	Glu	Leu	Asn	Leu	Glu	Glu	Lys	Gln
740				745				750							
Trp	Gln	Leu	Asp	Gln	Glu	Leu	Arg	Gly	Tyr	Met	Asn	Arg	Glu	Glu	Asn
755				760				765							
Leu	Lys	Thr	Ala	Ala	Asp	Arg	Gln	Ala	Glu	Asp	Gln	Val	Leu	Arg	Lys
770				775				780							
Leu	Val	Asp	Leu	Val	Asn	Gln	Arg	Asp	Ala	Leu	Ile	Arg	Phe	Gln	Glu
785				790				795				800			
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<212> DNA
<213> Homo sapiens
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540
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720
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1800
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2160

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<211> 621

<212> PRT

<213> Homo sapiens

<400> 6194

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			20				25				30				
Asn	Thr	His	Arg	Ala	Ile	Glu	Ser	Asn	Ser	Gln	Thr	Ser	Pro	Leu	Asn
		35				40					45				
Ala	Glu	Val	Val	Gln	Tyr	Ala	Lys	Glu	Val	Val	Asp	Phe	Ser	Ser	His
	50					55					60				
Tyr	Gly	Ser	Glu	Asn	Ser	Met	Ser	Tyr	Thr	Met	Trp	Asn	Leu	Ala	Gly
65				70						75				80	
Val	Pro	Asn	Val	Phe	Pro	Ser	Ser	Gly	Asp	Phe	Thr	Gln	Thr	Ala	Val
			85						90					95	
Phe	Arg	Thr	Tyr	Gly	Thr	Trp	Trp	Asp	Gln	Cys	Pro	Ser	Ala	Ser	Leu
			100					105					110		
Pro	Phe	Lys	Arg	Thr	Pro	Pro	Asn	Phe	Gln	Ser	Gln	Asp	Tyr	Val	Glu
		115					120					125			
Leu	Thr	Phe	Glu	Gln	Gln	Val	Tyr	Pro	Thr	Ala	Val	His	Val	Leu	Glu
	130					135					140				
Thr	Tyr	His	Pro	Gly	Ala	Val	Ile	Arg	Ile	Leu	Ala	Cys	Ser	Ala	Asn
145				150						155				160	
Pro	Tyr	Ser	Pro	Asn	Pro	Pro	Ala	Glu	Val	Arg	Trp	Glu	Ile	Leu	Trp

[illegible]

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<210> 6195
 <211> 518
 <212> DNA
 <213> Homo sapiens

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<210> 6196
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 6196
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 20 25 30
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 35 40 45
 Gln Val His Pro Asn Ser Ser Leu Ala Gln Lys Trp Cys Tyr Ile His
 50 55 60
 Trp Glu Gln Thr Cys Ile Pro Thr Pro Arg His Val Thr Thr Gly Thr
 65 70 75 80
 Ala Asn Glu Leu Cys Pro Gly Asn Ser Phe Thr Pro Ser Ser Cys Ser
 85 90 95
 Phe His Ser His Leu Leu Ser Thr Asn Tyr Ala Lys Asn Tyr Val Gln
 100 105 110
 His Arg Thr Gly Trp
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<210> 6197
 <211> 2841

<212> DNA

<213> Homo sapiens

<400> 6197

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240
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300
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360
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420
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 2841

<210> 6198

<211> 124

<212> PRT

<213> Homo sapiens

<400> 6198

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		20						25					30		
Ser	Ser	Gln	His	His	Gly	Leu	Asn	Thr	His	Trp	Ala	Pro	Thr	Leu	Gly
		35					40					45			
Pro	Gly	Trp	Gly	Met	Trp	Gly	Gln	Glu	Ala	Ala	Gln	Ser	Gly	Arg	Gln
		50				55					60				
Arg	Glu	Lys	Cys	Val	Gln	Arg	Ala	Pro	Ile	Ser	Gly	Cys	Asn	Val	Val
65					70					75				80	
Leu	Arg	Leu	Trp	Leu	Gly	Ser	Ala	Ser	Arg	Val	Ser	Tyr	Val	Leu	Cys
				85					90				95		
Ser	Tyr	Phe	Leu	Ser	Pro	Thr	Leu	Pro	Cys	Arg	Asn	Pro	Ser	Glu	Tyr
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Val	Ala	Thr	Ile	Leu	Glu	Leu	Ser	Ala	Leu	Ile	Val				
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<210> 6199

<211> 1777

<212> DNA

<213> Homo sapiens

<400> 6199

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<210> 6200

<211> 164

<212> PRT

<213> Homo sapiens

<400> 6200

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		20						25					30		
Pro	Pro	Lys	Pro	Asp	Cys	Gln	Gln	Lys	Pro	Ser	Pro	Ser	Glu	Gly	Gln
		35					40					45			
Val	Gly	Val	Pro	Xaa	Arg	Ser	Pro	His	Pro	Gln	Gly	Gly	Phe	Thr	His
	50					55				60					
Cys	Pro	Val	Pro	Gly	Met	Pro	Gly	Gly	Arg	Pro	Leu	Cys	Cys	Cys	His
65					70				75					80	
Cys	Cys	Gln	His	Cys	Pro	Ala	Cys	Glu	Ala	Arg	Arg	Ser	Pro	Cys	Pro
				85				90						95	
Thr	Arg	Cys	Cys	Cys	Ser	Ser	Asp	Pro	Cys	Cys	Glu	Glu	Trp	Asp	Ser
		100					105						110		
Trp	Ser	Lys	Lys	Leu	Val	Phe	Leu	Phe	Cys	Ile	Asn	Glu	Lys	Asn	Pro
		115					120					125			
Gly	Glu	Ala	Ala	Thr	Leu	Pro	Ser	Gln	Arg	Asp	Ala	Leu	Pro	Cys	Phe
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115

120

<210> 6203

<211> 3462

<212> DNA

<213> Homo sapiens

<400> 6203

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<210> 6204

<211> 486

<212> PRT

<213> Homo sapiens

<400> 6204

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			20					25					30		
Asp	Gly	His	Arg	Leu	Cys	Ser	Asp	Leu	Met	Asn	Cys	Leu	His	Glu	Arg
		35				40					45				
Ala	Arg	Ile	Glu	Lys	Ala	Tyr	Ala	Gln	Gln	Leu	Thr	Glu	Trp	Ala	Arg
	50					55					60				
Arg	Trp	Arg	Gln	Leu	Val	Glu	Lys	Gly	Pro	Gln	Tyr	Gly	Thr	Val	Glu
65				70						75					80
Lys	Ala	Trp	Met	Ala	Phe	Met	Ser	Glu	Ala	Glu	Arg	Val	Ser	Glu	Leu
				85					90					95	
His	Leu	Glu	Val	Lys	Ala	Ser	Leu	Met	Asn	Asp	Asp	Phe	Glu	Lys	Ile
			100					105					110		
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Lys	Glu	Thr	Lys	Glu	Ala	Glu	Asp	Gly	Phe	Arg	Lys	Ala	Gln	Lys	Pro
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Trp	Ala	Lys	Lys	Leu	Lys	Glu	Val	Glu	Ala	Ala	Lys	Lys	Ala	His	His
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Ala	Ala	Cys	Lys	Glu	Lys	Leu	Ala	Ile	Ser	Arg	Glu	Ala	Asn	Ser	
				165				170					175		
Lys	Ala	Asp	Pro	Ser	Leu	Asn	Pro	Glu	Gln	Leu	Lys	Lys	Leu	Gln	Asp
			180					185					190		
Lys	Ile	Glu	Lys	Cys	Lys	Gln	Asp	Val	Leu	Lys	Thr	Lys	Glu	Lys	Tyr
	195					200						205			
Glu	Lys	Ser	Leu	Lys	Glu	Leu	Asp	Gln	Gly	Thr	Pro	Gln	Tyr	Met	Glu
	210					215					220				
Asn	Met	Glu	Gln	Val	Phe	Glu	Gln	Cys	Gln	Gln	Phe	Glu	Glu	Lys	Arg
225				230						235				240	
Leu	Arg	Phe	Phe	Arg	Glu	Val	Leu	Leu	Glu	Val	Gln	Lys	His	Leu	Asp

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 260 265 270
 Ser Ile Arg Ala Ala Asp Ala Val Glu Asp Leu Arg Trp Phe Arg Ala
 275 280 285
 Asn His Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp
 290 295 300
 Ser Ala Asp Leu Asn Arg Thr Leu Ser Arg Arg Glu Lys Lys Lys Ala
 305 310 315 320
 Thr Asp Gly Val Thr Leu Thr Gly Ile Asn Gln Thr Gly Asp Gln Ser
 325 330 335
 Leu Pro Ser Lys Pro Ser Ser Thr Leu Asn Val Pro Ser Asn Pro Ala
 340 345 350
 Gln Ser Ala Gln Ser Gln Ser Ser Tyr Asn Pro Phe Glu Asp Glu Asp
 355 360 365
 Asp Thr Gly Ser Thr Val Ser Glu Lys Asp Asp Thr Lys Ala Lys Asn
 370 375 380
 Val Ser Ser Tyr Glu Lys Thr Gln Ser Tyr Pro Thr Asp Trp Ser Asp
 385 390 395 400
 Asp Glu Ser Asn Asn Pro Phe Ser Ser Thr Asp Ala Asn Gly Asp Ser
 405 410 415
 Asn Pro Phe Asp Asp Asp Ala Thr Ser Gly Thr Glu Val Arg Val Arg
 420 425 430
 Ala Leu Tyr Asp Tyr Glu Gly Gln Glu His Asp Glu Leu Ser Phe Lys
 435 440 445
 Ala Gly Asp Glu Leu Thr Lys Met Glu Asp Glu Asp Glu Gln Gly Trp
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 Cys Lys Gly Arg Leu Asp Asn Gly Gln Val Gly Leu Tyr Pro Ala Asn
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 Tyr Val Glu Ala Ile Gln
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<210> 6205

<211> 926

<212> DNA

<213> Homo sapiens

<400> 6205

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 360
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 420
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 480

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<210> 6206

<211> 92

<212> PRT

<213> Homo sapiens

<400> 6206

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			20					25				30			
Arg	Glu	Gly	Lys	Glu	Phe	Ala	Asp	Ser	Gln	Lys	Leu	Leu	Phe	Met	Glu
		35					40				45				
Thr	Ser	Ala	Lys	Leu	Asn	His	Gln	Val	Ser	Glu	Val	Phe	Asn	Thr	Val
	50					55				60					
Ala	Gln	Glu	Leu	Leu	Gln	Arg	Ser	Asp	Glu	Glu	Gly	Gln	Ala	Leu	Xaa
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<210> 6207

<211> 1384

<212> DNA

<213> Homo sapiens

<400> 6207

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 360

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<210> 6208

<211> 290

<212> PRT

<213> Homo sapiens

<400> 6208

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		20					25					30			
Ser	Ala	Gly	Leu	Ser	Leu	Val	Gly	Leu	Leu	Thr	Leu	Gly	Ala	Val	Leu
		35					40					45			
Ser	Ala	Ala	Ala	Thr	Val	Arg	Glu	Ala	Gln	Gly	Leu	Met	Ala	Gly	Gly
		50				55					60				
Phe	Leu	Cys	Phe	Ser	Leu	Ala	Phe	Xaa	Ala	Gln	Val	Gln	Val	Val	Phe
65					70					75				80	
Trp	Arg	Leu	His	Ser	Pro	Thr	Gln	Val	Glu	Asp	Ala	Met	Leu	Asp	Thr

85 90 95
 Tyr Asp Leu Val Tyr Glu Gln Ala Met Lys Gly Thr Ser His Val Arg
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 Arg Gln Glu Leu Ala Ala Ile Gln Asp Val Phe Leu Cys Cys Gly Lys
 115 120 125
 Lys Ser Pro Phe Ser Arg Leu Gly Ser Thr Glu Ala Asp Leu Cys Gln
 130 135 140
 Gly Glu Glu Ala Ala Arg Glu Asp Cys Leu Gln Gly Ile Arg Ser Phe
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 Leu Arg Thr His Gln Gln Val Ala Ser Ser Leu Thr Ser Ile Gly Leu
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 Ala Leu Thr Val Ser Ala Leu Leu Phe Ser Ser Phe Leu Trp Phe Ala
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 Ile Arg Cys Gly Cys Ser Leu Asp Arg Lys Gly Lys Tyr Thr Leu Thr
 195 200 205
 Pro Arg Ala Cys Gly Arg Gln Pro Gln Glu Pro Ser Leu Leu Arg Cys
 210 215 220
 Ser Gln Gly Gly Pro Thr His Cys Leu His Ser Glu Ala Val Ala Ile
 225 230 235 240
 Gly Pro Arg Gly Cys Ser Gly Ser Leu Arg Trp Leu Gln Glu Ser Asp
 245 250 255
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<210> 6209

<211> 2269

<212> DNA

<213> Homo sapiens

<400> 6209

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<210> 6210

<211> 165

<212> PRT

<213> Homo sapiens

<400> 6210

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		20						25					30		
Ser	Pro	Ser	Leu	Arg	Gly	Thr	His	Leu	Leu	Phe	Leu	Pro	Gln	Ala	Asp
		35					40					45			
Val	Val	Asp	Glu	Ala	Ile	Asp	Ser	Leu	Ala	Arg	Thr	Lys	Gly	Val	Met
	50					55					60				
Lys	Pro	Pro	Cys	Ser	Glu	Gly	Ser	Pro	Trp	Arg	Cys	Pro	His	Phe	Thr
65					70					75				80	
Cys	Trp	Val	Leu	Gln	Ala	Arg	Lys	Pro	Gly	Ser	Gly	Gly	Thr	Arg	Glu
				85					90					95	
Arg	Gln	Ala	Cys	Val	Trp	Thr	Ser	Ala	Gly	Ala	Ala	Ala	Leu	Arg	Leu
			100					105					110		
Ala	Arg	Glu	Arg	Gln	Arg	Trp	Val	Phe	Arg	Phe	His	Ala	Tyr	Val	Trp
		115					120					125			
Ala	His	Ser	Gln	His	Gly	Arg	Val	Ser	Ala	Val	Leu	Val	Leu	Thr	Leu
	130					135					140				
Pro	Glu	Gln	Gln	Trp	Thr	Asp	Glu	Ile	Arg	Leu	Phe	Gln	Lys	Gln	Arg
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<210> 6211

<211> 2163

<212> DNA

<213> Homo sapiens

<400> 6211

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 <213> Homo sapiens

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 Ala Phe Glu Gly Ser Tyr Leu Glu Asp Thr Gln Met Tyr Gly Asn Ile
 50 55 60
 Ile Arg Gly Trp Xaa Ser Val Ser Asp Gln Pro Xaa Lys Asn Ser Asn
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 Ser Lys Asn Asp Arg Arg Asn Arg Lys Phe Lys Glu Ala Glu Arg Leu
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 Phe Ser Lys Ser Ser Val Thr Ser Ala Ala Val Ser Ala Leu Ala
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 115 120 125
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 130 135 140
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<213> Homo sapiens

<400> 6214

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Lys	Gly	Val	Met	Glu	Gly	Gln	Ser	Leu	Glu	Pro	Ala	Ala	Ser	Ser	Gly
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<212> DNA

<213> Homo sapiens

<400> 6215

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<212> PRT

<213> Homo sapiens

<400> 6216

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Glu Ala Val Ala Ile Gly Pro Arg Gly Cys Ser Gly Ser Leu Arg Trp
35           40           45
Leu Gln Glu Ser Asp Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala
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<210> 6217

<211> 2955

<212> DNA

<213> Homo sapiens

<400> 6217

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<211> 133

<212> PRT

<213> Homo sapiens

<400> 6218

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Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln			
	50	55	60
Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser			
65	70	75	80
Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr			
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Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro			
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<210> 6219

<211> 2495

<212> DNA

<213> Homo sapiens

<400> 6219

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 Gly Gly Pro Ala Pro Ser Pro Gln Xaa Tyr Ile His Asp Ser Pro Ser
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 Cys Trp Pro Trp Thr Lys Ala Gly Ser Ser Xaa Cys Pro Val Arg Ser
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<211> 330

<212> PRT

<213> Homo sapiens

<400> 6222

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Tyr	Lys	Ile	Ser	Val	Val	Met	Gln	Glu	Ser	Ala	Glu	Lys	Leu	Ser	Glu
			20					25					30		
Lys	Leu	His	Lys	Cys	Lys	Glu	Phe	Val	Asp	Ser	Cys	Arg	Leu	Thr	Phe
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	50					55					60				
Leu	Ile	Gln	Asp	Gln	Asn	Ala	Gln	Thr	Arg	Trp	Lys	Gln	Gly	Arg	Tyr
65					70					75				80	
Asp	Glu	Asp	Gly	Lys	Pro	Phe	Asn	Gln	Arg	Ser	Leu	Leu	Leu	Gly	His
				85					90					95	
Glu	Arg	Ile	Leu	Thr	Arg	Ala	Lys	Ser	Tyr	Glu	Cys	Ser	Glu	Cys	Gly

	100		105		110										
Lys	Val	Ile	Arg	Arg	Lys	Ala	Trp	Phe	Asp	Gln	His	Gln	Arg	Ile	His
	115						120					125			
Phe	Leu	Glu	Asn	Pro	Phe	Glu	Cys	Lys	Val	Cys	Gly	Gln	Ala	Phe	Arg
	130						135					140			
Gln	Arg	Ser	Ala	Leu	Thr	Val	His	Lys	Gln	Cys	His	Leu	Gln	Asn	Lys
145						150					155				160
Pro	Tyr	Arg	Cys	His	Asp	Cys	Gly	Lys	Cys	Phe	Arg	Gln	Leu	Ala	Tyr
			165						170						175
Leu	Val	Glu	His	Lys	Arg	Ile	His	Thr	Lys	Glu	Lys	Pro	Tyr	Lys	Cys
			180					185						190	
Ser	Lys	Cys	Glu	Lys	Thr	Phe	Ser	Gln	Asn	Ser	Thr	Leu	Ile	Arg	His
	195						200					205			
Gln	Val	Ile	His	Ser	Gly	Glu	Lys	Arg	His	Lys	Cys	Leu	Glu	Cys	Gly
	210					215					220				
Lys	Ala	Phe	Gly	Arg	His	Ser	Thr	Leu	Leu	Cys	His	Gln	Gln	Ile	His
225					230					235					240
Ser	Lys	Pro	Asn	Thr	His	Lys	Cys	Ser	Glu	Cys	Gly	Gln	Ser	Phe	Gly
			245						250					255	
Arg	Asn	Val	Asp	Leu	Ile	Gln	His	Gln	Arg	Ile	His	Thr	Lys	Glu	Glu
			260					265						270	
Phe	Phe	Gln	Cys	Gly	Glu	Cys	Gly	Lys	Thr	Phe	Ser	Phe	Lys	Arg	Asn
	275						280					285			
Leu	Phe	Arg	His	Gln	Val	Ile	His	Thr	Gly	Ser	Gln	Leu	Tyr	Gln	Cys
	290					295					300				
Val	Ile	Cys	Gly	Lys	Ser	Phe	Lys	Trp	His	Thr	Ser	Phe	Ile	Lys	His
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<210> 6223

<211> 944

<212> DNA

<213> Homo sapiens

<400> 6223

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<210> 6224

<211> 156

<212> PRT

<213> Homo sapiens

<400> 6224

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Tyr	Gln	Val	Lys	Ile	Ser	Pro	Thr	Pro	Gln	Leu	Gly	Ala	Ala	Ser	Ser
			20					25					30		
Ala	Glu	Gly	His	Val	Gly	Gln	Gly	Ala	Pro	Gly	Leu	Met	Gly	Asn	Met
			35					40					45		
Asn	Pro	Glu	Gly	Gly	Val	Asn	His	Glu	Asn	Gly	Met	Asn	Arg	Asp	Gly
			50					55				60			
Gly	Met	Ile	Pro	Glu	Gly	Gly	Gly	Gly	Asn	Gln	Glu	Pro	Arg	Gln	Gln
65						70				75				80	
Pro	Gln	Pro	Pro	Pro	Glu	Glu	Pro	Ala	Gln	Ala	Ala	Met	Glu	Gly	Pro
					85				90					95	
Gln	Pro	Glu	Asn	Met	Gln	Pro	Arg	Thr	Arg	Arg	Thr	Lys	Phe	Thr	Leu
				100				105					110		
Leu	Gln	Val	Glu	Glu	Leu	Glu	Ser	Val	Phe	Arg	His	Thr	Gln	Tyr	Pro
				115				120				125			
Asp	Val	Pro	Thr	Arg	Arg	Glu	Leu	Ala	Glu	Asn	Leu	Gly	Val	Thr	Glu
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Asp	Lys	Val	Arg	Val	Ser	Thr	Leu	Glu	Lys	Ala	Ile				
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<210> 6225

<211> 3851

<212> DNA

<213> Homo sapiens

<400> 6225

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<211> 246

<212> PRT

<213> Homo sapiens

<400> 6226

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Gln	Gly	Asp	Phe	Ile	Lys	Cys	Val	Glu	Gln	Lys	Thr	Asp	Ala	Leu	Gly	35	40	45	
Lys	Gln	Ser	Val	Asn	Arg	Gly	Phe	Thr	Lys	Asp	Lys	Thr	Leu	Ser	Ser	50	55	60	
Ile	Phe	Asn	Ile	Glu	Met	Val	Lys	Glu	Lys	Thr	Ala	Glu	Glu	Ile	Lys	65	70	75	80
Gln	Ile	Trp	Gln	Gln	Tyr	Phe	Ala	Ala	Lys	Asp	Thr	Val	Tyr	Ala	Val	85	90	95	
Ile	Pro	Ala	Glu	Lys	Phe	Asp	Leu	Ile	Trp	Asn	Arg	Ala	Gln	Ser	Cys	100	105	110	
Pro	Thr	Phe	Leu	Cys	Ala	Leu	Pro	Arg	Arg	Glu	Gly	Tyr	Glu	Phe	Phe	115	120	125	
Val	Gly	Gln	Trp	Thr	Gly	Thr	Glu	Leu	His	Phe	Thr	Ala	Leu	Ile	Asn	130	135	140	
Ile	Gln	Thr	Arg	Gly	Glu	Ala	Ala	Ala	Ser	Gln	Leu	Ile	Leu	Tyr	His	145	150	155	160
Tyr	Pro	Glu	Leu	Lys	Glu	Glu	Lys	Gly	Ile	Val	Leu	Met	Thr	Ala	Glu	165	170	175	
Met	Asp	Ser	Thr	Phe	Leu	Asn	Val	Ala	Glu	Ala	Gln	Cys	Ile	Ala	Asn	180	185	190	
Gln	Val	Gln	Leu	Phe	Tyr	Ala	Thr	Asp	Arg	Lys	Glu	Thr	Tyr	Gly	Leu	195	200	205	
Val	Glu	Thr	Phe	Asn	Leu	Arg	Pro	Asn	Glu	Phe	Lys	Tyr	Met	Ser	Val	210	215	220	
Ile	Ala	Glu	Leu	Glu	Gln	Ser	Gly	Leu	Gly	Ala	Glu	Leu	Lys	Cys	Ala	225	230	235	240
Gln	Asn	Gln	Asn	Lys	Thr														

245

<210> 6227

<211> 830

<212> DNA

<213> Homo sapiens

<400> 6227

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120
ccagggagag tcgctgcaga atgggaggta cagaatcgta tcccttctgg aactatatta
180
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240
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<210> 6228

<211> 271

<212> PRT

<213> Homo sapiens

<400> 6228

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20           25           30
Ile Pro Ser Pro Gly Arg Val Ala Ala Glu Trp Glu Val Gln Asn Arg
35           40           45
Ile Pro Ser Gly Thr Ile Leu Lys Ala Leu Met Glu Gly Gly Glu Asn
50           55           60
Gly Pro Trp Met Arg Phe Met Arg Ala Glu Ile Thr Ala Glu Gly Phe
65           70           75           80
Leu Arg Glu Phe Gly Arg Leu Cys Ser Glu Met Leu Lys Thr Ser Val

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			100						105						110					
Gln	Phe	Pro	Val	Met	Thr	Glu	Ala	Ile	Thr	Gln	Ile	Arg	Ala	Lys	Gly					
			115						120						125					
Leu	Gln	Thr	Ala	Val	Leu	Ser	Asn	Asn	Phe	Tyr	Leu	Pro	Asn	Gln	Lys					
			130						135						140					
Ser	Phe	Leu	Pro	Leu	Asp	Arg	Lys	Gln	Phe	Asp	Val	Ile	Val	Glu	Ser					
			145						150						155	160				
Cys	Met	Glu	Gly	Ile	Cys	Lys	Pro	Asp	Pro	Arg	Ile	Tyr	Lys	Leu	Cys					
			165						170						175					
Leu	Glu	Gln	Leu	Gly	Leu	Gln	Pro	Ser	Glu	Ser	Ile	Phe	Leu	Asp	Asp					
			180						185						190					
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Lys	Val	Asn	Asp	Pro	Glu	Thr	Ala	Val	Lys	Glu	Leu	Glu	Ala	Leu	Leu					
			210						215						220					
Gly	Phe	Thr	Leu	Arg	Val	Gly	Val	Pro	Asn	Thr	Arg	Pro	Val	Lys	Lys					
			225						230						235	240				
Thr	Met	Glu	Ile	Pro	Lys	Asp	Ser	Leu	Gln	Lys	Tyr	Leu	Lys	Asp	Leu					
			245						250						255					
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<210> 6229

<211> 3105

<212> DNA

<213> Homo sapiens

<400> 6229

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120

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180

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2340

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<211> 944

<212> PRT

<213> Homo sapiens

<400> 6230

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			20					25					30		
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Asn	Ala	Glu	Val	Ala	Cys	Val	Ala	Val	His	Asp	Glu	Ser	Ala	Phe	Val
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Val	Gly	Thr	Glu	Lys	Gly	Arg	Met	Phe	Leu	Asn	Ala	Arg	Lys	Glu	Leu
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Gln	Ser	Asp	Phe	Leu	Arg	Phe	Cys	Arg	Gly	Pro	Pro	Trp	Lys	Asp	Pro
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Glu	Ala	Glu	His	Pro	Lys	Lys	Val	Gln	Arg	Gly	Glu	Gly	Gly	Gly	Arg
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Ser	Leu	Pro	Arg	Ser	Ser	Leu	Glu	His	Gly	Ser	Asp	Val	Tyr	Leu	Leu
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Phe	Gln	Glu	Asn	Tyr	Asp	Ala	Arg	Leu	Ser	Arg	Ile	Asp	Ile	Ala	Asn
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Leu	Ile	Pro	Lys	Pro	Asp	Glu	Asp	Asp	Ala	Asn	Arg	Leu	Gly	Glu	Lys
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785				790				795				800			
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Arg	Asp	Ser	Pro	Asp	Ala	Val	Glu	Val	Thr	Gly	Leu	Pro	Asp	Asp	Ile
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Pro	Phe	Arg	Asn	Pro	Asn	Thr	Tyr	Asp	Ile	His	Arg	Leu	Glu	Lys	Ile
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Leu	Lys	Ala	Arg	Glu	His	Val	Arg	Met	Val	Ile	Ile	Asn	Gln	Leu	Gln
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Ser	Ile	Pro	Lys	Arg	Lys	Arg	Lys	Arg	Val	Ser	Glu	Gly	Asn	Ser	Val
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Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Asn	Pro	Asp	Ser
900				905				910							
Val	Ala	Ser	Ala	Asn	Gln	Ile	Ser	Leu	Val	Gln	Trp	Pro	Met	Tyr	Met
915				920				925							
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<210> 6231

<211> 471

<212> DNA

<213> Homo sapiens

<400> 6231

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120

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 300
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<210> 6232

<211> 138

<212> PRT

<213> Homo sapiens

<400> 6232

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			20					25					30		
Lys	Lys	Ser	Met	Leu	Gly	Gln	Lys	Ser	Gly	Pro	Ser	Gly	Leu	Leu	Thr
		35				40						45			
Trp	Arg	Arg	Lys	Arg	Gly	Pro	Lys	Pro	Pro	Val	Ala	Pro	Ile	Ser	Ile
	50				55					60					
Trp	Asn	Gly	Thr	Thr	Pro	Arg	Gly	Glu	Pro	Pro	Pro	Asn	His	Ser	Ser
65					70				75					80	
Lys	Lys	Gly	Thr	Lys	Lys	Trp	Ala	Leu	Asp	Phe	Ser	Thr	Pro	Glu	Thr
			85				90						95		
Gln	Phe	Pro	Pro	Pro	Gly	Arg	Pro	Phe	Leu	Gly	Ile	Pro	Thr	Trp	Asp
		100					105						110		
Pro	Thr	Trp	Ala	Tyr	Ser	Gly	Pro	Tyr	Leu	Phe	Leu	Val	Gly	Ile	Gly
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<210> 6233

<211> 894

<212> DNA

<213> Homo sapiens

<400> 6233

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<210> 6234

<211> 230

<212> PRT

<213> Homo sapiens

<400> 6234

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			20					25					30		
Glu	Ala	Leu	Met	Leu	Arg	Asp	Gly	Arg	Phe	Ala	Cys	Ala	Ile	Cys	Pro
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His	Arg	Pro	Val	Leu	Asp	Thr	Leu	Ala	Met	Leu	Thr	Ala	His	Arg	Ala
		50				55					60				
Gly	Lys	Lys	His	Leu	Ser	Ser	Leu	Gln	Leu	Phe	Tyr	Gly	Lys	Lys	Gln
65				70					75					80	
Pro	Gly	Lys	Glu	Arg	Lys	Gln	Asn	Pro	Lys	His	Gln	Asn	Glu	Leu	Arg
			85					90					95		
Arg	Glu	Glu	Thr	Lys	Ala	Glu	Ala	Pro	Leu	Leu	Thr	Gln	Thr	Arg	Leu
			100					105					110		
Ile	Thr	Gln	Ser	Ala	Leu	His	Arg	Ala	Pro	His	Tyr	Asn	Ser	Cys	Cys
		115					120					125			
Arg	Arg	Lys	Tyr	Arg	Pro	Glu	Ala	Pro	Gly	Pro	Ser	Val	Ser	Leu	Ser
		130					135				140				
Pro	Met	Pro	Pro	Ser	Glu	Val	Lys	Leu	Gln	Ser	Gly	Lys	Ile	Ser	Arg
145				150					155					160	
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			165					170						175	
Ser	Ala	Pro	Ala	Pro	Met	Ser	Pro	Thr	Arg	Arg	Arg	Ala	Leu	Asp	His
		180						185					190		
Tyr	Leu	Thr	Leu	Arg	Ser	Ser	Gly	Trp	Ile	Pro	Asp	Gly	Arg	Gly	Arg
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<211> 820

<212> PRT

<213> Homo sapiens

<400> 6236

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		20						25					30		
Pro	Glu	Gly	Gly	Leu	Pro	Gly	Pro	Trp	Ala	Leu	His	Arg	Gly	Arg	Lys
		35					40					45			
Lys	Ala	Thr	Gly	Ser	Pro	Val	Ser	Ile	Phe	Val	Tyr	Asp	Val	Lys	Pro
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Gly	Ala	Glu	Glu	Gln	Thr	Gln	Val	Ala	Lys	Ala	Ala	Phe	Lys	Arg	Phe
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Lys	Thr	Leu	Arg	His	Pro	Asn	Ile	Leu	Ala	Tyr	Ile	Asp	Gly	Leu	Glu
				85					90					95	
Thr	Glu	Lys	Cys	Leu	His	Val	Val	Thr	Glu	Ala	Val	Thr	Pro	Leu	Gly
			100					105					110		
Ile	Tyr	Leu	Lys	Ala	Arg	Val	Glu	Ala	Gly	Gly	Leu	Lys	Glu	Leu	Glu
	115					120					125				
Ile	Ser	Trp	Gly	Leu	His	Gln	Ile	Val	Lys	Ala	Leu	Ser	Phe	Leu	Val
	130					135					140				
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Trp	Glu	Val	Phe	Asn	Gly	Pro	Leu	Pro	Arg	Ala	Ala	Ala	Leu	Arg	Asn

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				245					250					255	
Gly	Ala	Asn	Pro	Lys	Val	Arg	Pro	Asn	Pro	Ala	Arg	Phe	Leu	Gln	Asn
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Cys	Arg	Ala	Pro	Gly	Gly	Phe	Met	Ser	Asn	Arg	Phe	Val	Glu	Thr	Asn
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Phe	Phe	Gln	Glu	Leu	Ser	Lys	Ser	Leu	Asp	Ala	Phe	Pro	Glu	Asp	Phe
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Cys	Arg	His	Lys	Val	Leu	Pro	Gln	Leu	Leu	Thr	Ala	Phe	Glu	Phe	Gly
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	340					345				350					
Leu	Ser	Ala	Glu	Glu	Tyr	Gln	Gln	Lys	Ile	Ile	Pro	Val	Val	Val	Lys
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Ile	Phe	Pro	His	Val	Val	His	Gly	Phe	Leu	Asp	Thr	Asn	Pro	Ala	Ile
			405					410						415	
Arg	Glu	Gln	Thr	Val	Lys	Ser	Met	Leu	Leu	Leu	Ala	Pro	Lys	Leu	Asn
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Glu	Ala	Asn	Leu	Asn	Val	Glu	Leu	Met	Lys	His	Phe	Ala	Arg	Leu	Gln
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Ala	Lys	Asp	Glu	Gln	Gly	Pro	Ile	Arg	Cys	Asn	Thr	Thr	Val	Cys	Leu
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Gly	Lys	Ile	Gly	Ser	Tyr	Leu	Ser	Ala	Ser	Thr	Arg	His	Arg	Val	Leu
465					470					475					480
Thr	Ser	Ala	Phe	Ser	Arg	Ala	Thr	Arg	Asp	Pro	Phe	Ala	Pro	Ser	Arg
			485					490						495	
Val	Ala	Gly	Val	Leu	Gly	Phe	Ala	Ala	Thr	His	Asn	Leu	Tyr	Ser	Met
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Asn	Asp	Cys	Ala	Gln	Lys	Ile	Leu	Pro	Val	Leu	Cys	Gly	Leu	Thr	Val
	515					520				525					
Asp	Pro	Glu	Lys	Ser	Val	Arg	Asp	Gln	Ala	Phe	Lys	Ala	Ile	Arg	Ser
	530				535					540					
Phe	Leu	Ser	Lys	Leu	Glu	Ser	Val	Ser	Glu	Asp	Pro	Thr	Gln	Leu	Glu
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Glu	Val	Glu	Lys	Asp	Val	His	Ala	Ala	Ser	Ser	Pro	Gly	Met	Gly	Gly
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Ala	Ala	Ala	Ser	Trp	Ala	Gly	Trp	Ala	Val	Thr	Gly	Val	Ser	Ser	Leu
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Thr	Ser	Lys	Leu	Ile	Arg	Ser	His	Pro	Thr	Thr	Ala	Pro	Thr	Glu	Thr
	595					600							605		
Asn	Ile	Pro	Gln	Arg	Pro	Thr	Pro	Glu	Gly	Val	Pro	Ala	Pro	Ala	Pro
	610					615				620					
Thr	Pro	Val	Pro	Ala	Thr	Pro	Thr	Thr	Ser	Gly	His	Trp	Glu	Thr	Gln
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675										680					685					
Gln	Val	Ser	Asn	Ser	Asp	His	Lys	Ser	Ser	Lys	Ser	Pro	Glu	Ser	Asp					
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Tyr	Asn	Trp	Gly	Gly	Pro	Glu	Ser	Ser	Asp	Lys	Gly	Asp	Pro	Phe	Ala					
740										745					750					
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755										760					765					
Glu	Asp	Asn	Trp	Glu	Gly	Leu	Glu	Thr	Asp	Ser	Arg	Gln	Val	Lys	Ala					
770										775					780					
Glu	Leu	Ala	Arg	Lys	Lys	Arg	Glu	Glu	Arg	Arg	Arg	Glu	Met	Glu	Ala					
785	790										795					800				
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<210> 6237

<211> 494

<212> DNA

<213> Homo sapiens

<400> 6237

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360

acggagacag gtaccactg tatgtcatc ccaaaacaaa gcgaccagaa attgactgca
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<210> 6238

<211> 141

<212> PRT

<213> Homo sapiens

<400> 6238

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20	25	30	
Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys Arg Ile Met			
35	40	45	
Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro Val Tyr Glu Ala			
50	55	60	
Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu Arg Ser Met Glu Gly			
65	70	75	80
His Ala Pro His His Phe Lys Leu Val Ser Val His Val Phe Ile Arg			
85	90	95	
His Gly Asp Arg Tyr Pro Leu Tyr Val Ile Pro Lys Thr Lys Arg Pro			
100	105	110	
Glu Ile Asp Cys Thr Leu Val Ala Asn Arg Lys Pro Tyr His Pro Lys			
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Leu Glu Ala Phe Ile Ser His Met Leu Arg Gly Ser Gly			
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<210> 6239

<211> 911

<212> DNA

<213> Homo sapiens

<400> 6239

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<211> 235
<212> PRT
<213> Homo sapiens

<400> 6240
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35 40 45
Phe Arg Lys Phe Gln Val Trp Arg Leu Val Thr Asn Phe Leu Phe Phe
50 55 60
Gly Pro Leu Gly Phe Ser Phe Phe Phe Asn Met Leu Phe Val Phe Arg
65 70 75 80
Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp
85 90 95
Phe Val Phe Met Phe Leu Phe Gly Gly Val Leu Met Thr Leu Leu Gly
100 105 110
Leu Leu Gly Ser Leu Phe Phe Leu Gly Gln Ala Leu Met Ala Met Leu
115 120 125
Val Tyr Val Trp Ser Arg Arg Ser Pro Arg Val Arg Val Asn Phe Phe
130 135 140
Gly Leu Leu Thr Phe Gln Ala Pro Phe Leu Pro Trp Ala Leu Met Gly
145 150 155 160
Phe Ser Leu Leu Leu Gly Asn Ser Ile Leu Val Asp Leu Leu Gly Ile
165 170 175
Ala Val Gly His Ile Tyr Tyr Phe Leu Glu Asp Val Phe Pro Asn Gln
180 185 190
Pro Gly Gly Lys Arg Leu Leu Gln Thr Pro Gly Phe Leu Lys Leu Leu
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Gln Pro Gly Pro His Leu Pro Pro Pro Gln Gln
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<211> 1515
<212> DNA
<213> Homo sapiens

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<210> 6242

<211> 245

<212> PRT

<213> Homo sapiens

<400> 6242

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<210> 6244
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<212> PRT
<213> Homo sapiens
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<400> 6244

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          20             25             30
Gly Phe Leu Leu Trp Lys Ala Ile Pro Ser Phe Ala Ser Ser Thr Leu
          35             40             45
Arg Met Ser Ser Ser Leu His Ser Leu Trp Phe Val Pro Leu Val Ser
          50             55             60
Glu Glu Glu Val Leu Ile Ile Leu Ser Gly Ser Glu Cys Ser Thr Cys
65             70             75             80
Pro Tyr Val Leu Ser Tyr Pro Thr Ser Ser Leu Thr Leu Phe His Gln
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Phe Leu Ser Phe Ser Pro Trp Arg
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<210> 6245

<211> 6609

<212> DNA

<213> Homo sapiens

<400> 6245

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 aaaaaaaaa
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<210> 6246

<211> 1286

<212> PRT

<213> Homo sapiens

<400> 6246

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			20					25					30		
Ile	Leu	Ser	Glu	Gln	Lys	Ala	Met	Ile	Asn	Ala	Met	Asp	Ser	Lys	Ile
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Arg	Ser	Leu	Glu	Gln	Arg	Ile	Val	Glu	Leu	Ser	Glu	Ala	Asn	Lys	Leu
		50				55					60				
Ala	Ala	Asn	Ser	Ser	Leu	Phe	Thr	Gln	Arg	Asn	Met	Lys	Ala	Gln	Glu
65					70					75				80	
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				85					90					95	
Ala	Gly	Lys	Leu	Glu	Ala	Gln	Asn	Arg	Lys	Leu	Glu	Glu	Gln	Leu	Glu
			100					105					110		
Lys	Ile	Ser	His	Gln	Asp	His	Ser	Asp	Lys	Asn	Arg	Leu	Leu	Glu	Leu
		115					120					125			
Glu	Thr	Arg	Leu	Arg	Glu	Val	Ser	Leu	Glu	His	Glu	Glu	Gln	Lys	Leu
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Gln	Leu	Arg	Gln	Ala	Lys	Thr	Glu	Leu	Glu	Glu	Thr	Thr	Ala	Glu	Ala
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Glu	Glu	Glu	Ile	Gln	Ala	Leu	Thr	Ala	His	Arg	Asp	Glu	Ile	Gln	Arg
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Lys	Phe	Asp	Ala	Leu	Arg	Asn	Ser	Cys	Thr	Val	Ile	Thr	Asp	Leu	Glu
	210					215					220				
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Arg	Ser	Val	Leu	Gly	Asp	Glu	Lys	Ser	Gln	Phe	Glu	Cys	Arg	Val	Arg
			325					330					335		
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Gln	Gly	Leu	Gln	Glu	Ala	Leu	Asp	Arg	Ala	Asp	Leu	Leu	Lys	Thr	Glu
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His	Glu	Lys	Val	Lys	Met	Glu	Gly	Thr	Ile	Ser	Gln	Gln	Thr	Lys	Leu
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Val	Pro	Leu	Gln	Tyr	Asn	Glu	Leu	Lys	Leu	Ala	Leu	Glu	Lys	Glu	Lys
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Ala	Arg	Cys	Ala	Glu	Leu	Glu	Glu	Ala	Leu	Gln	Lys	Thr	Arg	Ile	Glu
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Leu	Arg	Ser	Ala	Arg	Glu	Glu	Ala	Ala	His	Arg	Lys	Ala	Thr	Asp	His
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Pro	His	Pro	Ser	Thr	Pro	Ala	Thr	Ala	Arg	Gln	Gln	Ile	Ala	Met	Ser
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Ser	Arg	Arg	Leu	Lys	Glu	Arg	Met	His	His	Asn	Ile	Pro	His	Arg	Phe
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Thr	Val	His	Phe	Gly	Arg	Gln	Ala	Ser	Lys	Cys	Leu	Glu	Cys	Gln	Val
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			660					665					670		
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		675					680					685			
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	690					695					700				
Leu	Glu	Gly	Trp	Met	Lys	Val	Pro	Arg	Asn	Asn	Lys	Arg	Gly	Gln	Gln
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Gly	Trp	Asp	Arg	Lys	Tyr	Ile	Val	Leu	Glu	Gly	Ser	Lys	Val	Leu	Ile
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Tyr	Asp	Asn	Glu	Ala	Arg	Glu	Ala	Gly	Gln	Arg	Pro	Val	Glu	Glu	Phe
			740					745					750		
Glu	Leu	Cys	Leu	Pro	Asp	Gly	Asp	Val	Ser	Ile	His	Gly	Ala	Val	Gly
		755					760					765			
Ala	Ser	Glu	Leu	Ala	Asn	Thr	Ala	Lys	Ala	Asp	Val	Pro	Tyr	Ile	Leu
	770					775					780				
Lys	Met	Glu	Ser	His	Pro	His	Thr	Thr	Cys	Trp	Pro	Gly	Arg	Thr	Leu
785					790						795				800
Tyr	Leu	Leu	Ala	Pro	Ser	Phe	Pro	Asp	Lys	Gln	Arg	Trp	Val	Thr	Ala
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			820					825					830		
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Leu	Val	Gly	Thr	Glu	Glu	Gly	Leu	Tyr	Ala	Leu	Asn	Val	Leu	Lys	Asn
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Ser	Leu	Thr	His	Val	Pro	Gly	Ile	Gly	Ala	Val	Phe	Gln	Ile	Tyr	Ile
			885						890				895		
Ile	Lys	Asp	Leu	Glu	Lys	Leu	Leu	Met	Ile	Ala	Gly	Glu	Glu	Arg	Ala
			900					905					910		
Leu	Cys	Leu	Val	Asp	Val	Lys	Lys	Val	Lys	Gln	Ser	Leu	Ala	Gln	Ser
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His	Leu	Pro	Ala	Gln	Pro	Asp	Ile	Ser	Pro	Asn	Ile	Phe	Glu	Ala	Val
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      1045              1050              1055
Glu Glu Tyr Leu Leu Cys Phe His Glu Phe Gly Val Phe Val Asp Ser
      1060              1065              1070
Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu Lys Trp Ser Arg Leu Pro
      1075              1080              1085
Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu Phe Val Thr His Phe Asn
      1090              1095              1100
Ser Leu Glu Val Ile Glu Ile Gln Ala Arg Ser Ser Ala Gly Thr Pro
1105              1110              1115              1120
Ala Arg Ala Tyr Leu Asp Ile Pro Asn Pro Arg Tyr Leu Gly Pro Ala
      1125              1130              1135
Ile Ser Ser Gly Ala Ile Tyr Leu Ala Ser Ser Tyr Gln Asp Lys Leu
      1140              1145              1150
Arg Val Ile Cys Cys Lys Gly Asn Leu Val Lys Glu Ser Gly Thr Glu
      1155              1160              1165
His His Arg Gly Pro Ser Thr Ser Arg Ser Ser Pro Asn Lys Arg Gly
      1170              1175              1180
Pro Pro Thr Tyr Asn Glu His Ile Thr Lys Arg Val Ala Ser Ser Pro
1185              1190              1195              1200
Ala Pro Pro Glu Gly Pro Ser His Pro Arg Glu Pro Ser Thr Pro His
      1205              1210              1215
Arg Tyr Arg Glu Gly Arg Thr Glu Leu Arg Arg Asp Lys Ser Pro Gly
      1220              1225              1230
Arg Pro Leu Glu Arg Glu Lys Ser Pro Gly Arg Met Leu Ser Thr Arg
      1235              1240              1245
Arg Glu Arg Ser Pro Gly Arg Leu Phe Glu Asp Ser Ser Arg Gly Arg
      1250              1255              1260
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Trp Asp Gln Ser Ser Val
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<210> 6247

<211> 497

<212> DNA

<213> Homo sapiens

<400> 6247

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120
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180
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240
caacccatgt ctatcgttat cacagaggcg agtcgaagct gcacatgtgc ttggacatag
300
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360

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<210> 6248

<211> 142

<212> PRT

<213> Homo sapiens

<400> 6248

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Ser	Ala	Gly	Glu	Gly	Gln	Glu	Glu	Gly	Gly	Gly	Leu	Ala	Cys	Pro	Gly
			20					25					30		
Ala	Ser	Gln	Arg	Leu	His	Gly	Gly	Pro	Cys	Pro	Gly	Gly	Ala	Pro	Pro
		35				40						45			
Arg	Glu	Thr	Ala	Gly	Ser	Arg	Pro	Ala	Ala	Arg	Ser	Pro	Gly	Arg	Glu
	50					55					60				
Ile	Leu	Phe	Ile	Cys	Ala	Arg	Gly	Arg	Arg	Gly	Asn	Pro	Cys	Leu	Ser
65				70				75						80	
Leu	Ser	Gln	Arg	Arg	Val	Glu	Ala	Ala	His	Val	Leu	Gly	His	Arg	Glu
			85					90					95		
Trp	Ser	Glu	Lys	Arg	Gln	Lys	Lys	Asp	Ile	Pro	Trp	Ser	Trp	Arg	Gln
			100					105					110		
Leu	Ser	Asn	Ile	Arg	Ala	Cys	Ser	Arg	Gly	Ile	Pro	Ala	Cys	Glu	Tyr
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<210> 6249

<211> 1217

<212> DNA

<213> Homo sapiens

<400> 6249

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 180
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 240
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 360
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 420
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 480

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<210> 6250

<211> 245

<212> PRT

<213> Homo sapiens

<400> 6250

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			20					25					30		
Val	Ile	Ala	Thr	Asp	Ile	Asn	Glu	Ser	Lys	Leu	Gln	Glu	Leu	Glu	Lys
			35				40					45			
Tyr	Pro	Gly	Ile	Gln	Thr	Arg	Val	Leu	Asp	Val	Thr	Lys	Lys	Lys	Gln
			50			55				60					
Ile	Asp	Gln	Phe	Ala	Asn	Glu	Val	Glu	Arg	Leu	Asp	Val	Leu	Phe	Asn
65					70					75				80	
Val	Ala	Gly	Phe	Val	His	His	Gly	Thr	Val	Leu	Asp	Cys	Glu	Glu	Lys
			85					90					95		
Asp	Trp	Asp	Phe	Ser	Met	Asn	Leu	Asn	Val	Arg	Ser	Met	Tyr	Leu	Met
			100					105					110		
Ile	Lys	Ala	Phe	Leu	Pro	Lys	Met	Leu	Ala	Gln	Lys	Ser	Gly	Asn	Ile
			115				120						125		
Ile	Asn	Met	Ser	Ser	Val	Ala	Ser	Ser	Val	Lys	Gly	Val	Val	Asn	Arg
			130			135					140				
Cys	Val	Tyr	Ser	Thr	Thr	Lys	Ala	Ala	Val	Ile	Gly	Leu	Thr	Lys	Ser
145					150					155				160	
Val	Ala	Ala	Asp	Phe	Ile	Gln	Gln	Gly	Ile	Arg	Cys	Asn	Cys	Val	Cys

165						170						175					
Pro	Gly	Thr	Val	Asp	Thr	Pro	Ser	Leu	Gln	Glu	Arg	Ile	Gln	Ala	Arg		
180						185						190					
Gly	Asn	Pro	Glu	Glu	Ala	Arg	Asn	Asp	Phe	Leu	Lys	Arg	Gln	Lys	Thr		
195						200						205					
Gly	Arg	Phe	Ala	Thr	Ala	Glu	Glu	Ile	Ala	Met	Leu	Cys	Val	Tyr	Leu		
210						215						220					
Ala	Ser	Asp	Glu	Ser	Ala	Tyr	Val	Thr	Gly	Asn	Pro	Val	Ile	Ile	Asp		
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<210> 6251

<211> 1611

<212> DNA

<213> Homo sapiens

<400> 6251

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420	ggggctccgc	tgcgacgggc	cctggcccag	cttcaggccc	tcacaggagg	acagtcaagg
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660	ccacaggccc	actgaggcag	aggcatgagt	cgcccaagtg	ctggatgggg	catggggaga
720	aaggggcgtg	ggcagccctg	ctactgctgg	caagaggtgg	ccccattttt	tccagatggg
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<210> 6252

<211> 100

<212> PRT

<213> Homo sapiens

<400> 6252

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Ala	Lys	Ser	Ser	Lys	Gly	Lys	Gly	Arg	Gly	His	Ser	Gly	Glu	Asn	Ser
				20				25					30		
Ile	Ser	Gly	Lys	Thr	Gly	Ile	His	Phe	Lys	Ile	Ser	Ala	Gln	Lys	Gly
				35				40					45		
Ser	Arg	Ala	Val	Leu	Lys	Pro	Gly	Arg	Gln	Gly	Pro	Pro	Ile	Pro	Thr
				50				55					60		
Ile	Leu	Leu	Ser	Pro	Ser	Pro	Pro	Trp	Arg	Thr	Leu	Ala	Arg	Val	Tyr
65					70				75					80	
Arg	Glu	Ser	His	His	Ile	Tyr	Tyr	Glu	Ala	Arg	Ala	Leu	Gly	Tyr	Val
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Pro	Thr	Ile	Pro												
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<210> 6253

<211> 1953

<212> DNA

<213> Homo sapiens

<400> 6253

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<211> 216

<212> PRT

<213> Homo sapiens

<400> 6254

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<211> 622

<212> DNA

<213> Homo sapiens

<400> 6255

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<212> PRT

<213> Homo sapiens

<400> 6256

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			20					25					30		
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		35					40				45				
Asn	Ile	Met	Gly	Gly	Lys	Glu	Gln	Asn	Ser	Pro	Ile	Tyr	Ile	Ser	Arg
	50					55				60					
Val	Ile	Pro	Gly	Gly	Val	Ala	Asp	Arg	His	Gly	Gly	Leu	Lys	Arg	Gly
65					70				75					80	
Asp	Gln	Leu	Leu	Ser	Val	Asn	Gly	Val	Ser	Val	Glu	Gly	Glu	Gln	His
			85						90					95	
Glu	Lys	Ala	Val	Glu	Leu	Leu	Lys	Ala	Ala	Gln	Gly	Ser	Val	Lys	Leu
		100					105						110		
Val	Val	Arg	Tyr	Thr	Pro	Arg	Val	Leu	Glu	Glu	Met	Glu	Ala	Arg	Phe
		115				120					125				
Glu	Lys	Met	Arg	Ser	Ala	Arg	Arg	Arg	Gln	Gln	His	Gln	Ser	Tyr	Ser
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<210> 6257

<211> 2216

<212> DNA

<213> Homo sapiens

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<211> 340

<212> PRT

<213> Homo sapiens

<400> 6258

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			20					25					30		
Ser	Pro	Cys	Gly	Lys	Phe	Leu	Ala	Gly	Asn	Asn	Tyr	Gly	Gln	Ile	
		35				40					45				
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	50					55					60				
Ser	Lys	Lys	Pro	Val	Val	Thr	Phe	Gln	Ala	His	Asp	Gly	Pro	Val	Tyr
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Asn	Gln	Gln	Pro	Ala	Ala	Pro	Glu	Cys	Lys	Val	Leu	Thr	Ala	Ala	Gly	
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<212> DNA
<213> Homo sapiens
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			20					25					30		
Gln	Lys	Asn	Glu	Lys	Ile	Lys	Tyr	Ser	Arg	Phe	Ala	Ala	Thr	Asn	Thr
		35					40					45			
Arg	Val	Lys	Ala	Lys	Gln	Lys	Pro	Leu	Ile	Ser	Asn	Ser	His	Thr	Asp
	50					55				60					
His	Leu	Met	Gly	Cys	Thr	Lys	Ser	Ala	Glu	Pro	Gly	Thr	Glu	Thr	Ser
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Gln	Val	Asn	Ser	Phe	Ser	Asp	Leu	Lys	Ala	Ser	Thr	Leu	Val	His	Lys
				85					90					95	
Pro	Gln	Ser	Asp	Phe	Thr	Asn	Asp	Ala	Leu	Ser	Pro	Lys	Phe	Asn	Leu
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<212> DNA

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<210> 6262

<211> 431

<212> PRT

<213> Homo sapiens

<400> 6262

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			20					25					30		
Val	Arg	Leu	Gln	Asn	Glu	Thr	Ser	Tyr	Ser	Arg	Val	Leu	His	Gly	Tyr
		35					40					45			
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		50				55				60					
Gly	Thr	Leu	Asn	Lys	Val	Phe	Ala	Ser	Gln	Trp	Leu	Asn	His	Arg	Gln
65				70					75					80	
Val	Val	Cys	Gly	Thr	Lys	Cys	Asn	Thr	Leu	Phe	Val	Val	Asp	Val	Gln
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Thr	Ser	Gln	Ile	Thr	Lys	Ile	Pro	Ile	Leu	Lys	Asp	Arg	Glu	Pro	Gly
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Ser	Arg	Thr	Leu	Leu	Ala	Thr	Gly	Gly	Asp	Asn	Pro	Asn	Ser	Leu	Ala
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Ile	Tyr	Arg	Leu	Pro	Thr	Leu	Asp	Pro	Val	Cys	Val	Gly	Asp	Asp	Gly
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His	Lys	Asp	Trp	Ile	Phe	Ser	Ile	Ala	Trp	Ile	Ser	Asp	Thr	Met	Ala
			165				170							175	
Val	Ser	Gly	Ser	Arg	Asp	Gly	Ser	Met	Gly	Leu	Trp	Glu	Val	Thr	Asp
		180					185					190			
Asp	Val	Leu	Thr	Lys	Ser	Asp	Ala	Arg	His	Asn	Val	Ser	Arg	Val	Pro

195	200	205
Val Tyr Ala His Ile Thr His Lys Ala Leu Lys Asp Ile Pro Lys Glu		
210	215	220
Asp Thr Asn Pro Asp Asn Cys Lys Val Arg Ala Leu Ala Phe Asn Asn		
225	230	235
Lys Asn Lys Glu Leu Gly Ala Val Ser Leu Asp Gly Tyr Phe His Leu		
245	250	255
Trp Lys Ala Glu Asn Thr Leu Ser Lys Leu Leu Ser Thr Lys Leu Pro		
260	265	270
Tyr Cys Arg Glu Asn Val Cys Leu Ala Tyr Gly Ser Glu Trp Ser Val		
275	280	285
Tyr Ala Val Gly Ser Gln Ala His Val Ser Phe Leu Asp Pro Arg Gln		
290	295	300
Pro Ser Tyr Asn Val Lys Ser Val Cys Ser Arg Glu Arg Gly Ser Gly		
305	310	315
Ile Arg Ser Val Ser Phe Tyr Glu His Ile Ile Thr Val Gly Thr Gly		
325	330	335
Gln Gly Ser Leu Leu Phe Tyr Asp Ile Arg Ala Gln Arg Phe Leu Glu		
340	345	350
Glu Arg Leu Ser Ala Cys Tyr Gly Ser Lys Pro Arg Leu Ala Gly Glu		
355	360	365
Asn Leu Lys Leu Thr Thr Gly Lys Gly Trp Leu Asn His Asp Glu Thr		
370	375	380
Trp Arg Asn Tyr Phe Ser Asp Ile Asp Phe Phe Pro Asn Ala Val Tyr		
385	390	395
Thr His Cys Tyr Asp Ser Ser Gly Thr Lys Leu Phe Val Ala Gly Gly		
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<210> 6263

<211> 2508

<212> DNA

<213> Homo sapiens

<400> 6263

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240
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300
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<210> 6264

<211> 654

<212> PRT

<213> Homo sapiens

<400> 6264

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			20				25						30		
Asn	Asn	Trp	Asp	Leu	Val	Ala	Ala	Ile	Asn	Gly	Val	Ile	Pro	Gln	Glu
			35				40					45			
Asn	Gly	Ile	Leu	Gln	Ser	Glu	Tyr	Gly	Gly	Glu	Thr	Ile	Pro	Gly	Pro
	50					55				60					
Ala	Phe	Asn	Pro	Ala	Ser	His	Pro	Ala	Ser	Ala	Pro	Thr	Ser	Ser	Ser
65					70				75					80	
Ser	Ser	Ala	Phe	Arg	Pro	Val	Met	Pro	Ser	Arg	Gln	Ile	Val	Glu	Arg
			85					90					95		
Gln	Pro	Arg	Met	Leu	Asp	Phe	Arg	Val	Glu	Tyr	Arg	Asp	Arg	Asn	Val
			100				105					110			
Asp	Val	Val	Leu	Glu	Asp	Thr	Cys	Thr	Val	Gly	Glu	Ile	Lys	Gln	Ile
		115					120					125			
Leu	Glu	Asn	Glu	Leu	Gln	Ile	Pro	Val	Ser	Lys	Met	Leu	Leu	Lys	Gly
	130					135				140					
Trp	Lys	Thr	Gly	Asp	Val	Glu	Asp	Ser	Thr	Val	Leu	Lys	Ser	Leu	His
145					150				155					160	
Leu	Pro	Lys	Asn	Asn	Ser	Leu	Tyr	Val	Leu	Thr	Pro	Asp	Leu	Pro	Pro
			165					170					175		
Pro	Ser	Ser	Ser	Ser	His	Ala	Gly	Ala	Leu	Gln	Glu	Ser	Leu	Asn	Gln
			180				185						190		
Asn	Phe	Met	Leu	Ile	Ile	Thr	His	Arg	Glu	Val	Gln	Arg	Glu	Tyr	Asn
	195					200					205				
Leu	Asn	Phe	Ser	Gly	Ser	Ser	Thr	Ile	Gln	Glu	Val	Lys	Arg	Asn	Val
	210					215				220					
Tyr	Asp	Leu	Thr	Ser	Ile	Pro	Val	Arg	His	Gln	Leu	Trp	Glu	Gly	Trp
225					230				235					240	
Pro	Thr	Ser	Ala	Thr	Asp	Asp	Ser	Met	Cys	Leu	Ala	Glu	Ser	Gly	Leu
			245					250					255		
Ser	Tyr	Pro	Cys	His	Arg	Leu	Thr	Val	Gly	Arg	Arg	Ser	Ser	Pro	Ala
			260				265					270			
Gln	Thr	Arg	Glu	Gln	Ser	Glu	Glu	Gln	Ile	Thr	Asp	Val	His	Met	Val

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290	295	300
Asp Asp Gly Glu Val Phe	Gly Met Ala Ser Ser Ala	Leu Arg Lys Ser
305	310	315
Pro Met Ile Cys Phe Leu	Val Pro Glu Asn Ala Glu	Asn Glu Gly Asp
325	330	335
Ala Leu Leu Gln Phe Thr	Ala Glu Phe Ser Ser Arg	Tyr Gly Asp Cys
340	345	350
His Pro Val Phe Phe Ile	Gly Ser Leu Glu Ala Ala	Phe Gln Glu Ala
355	360	365
Phe Tyr Val Lys Ala Arg	Asp Arg Lys Leu Leu Ala	Ile Tyr Leu His
370	375	380
His Asp Glu Ser Val Leu	Thr Asn Val Phe Cys Ser	Gln Met Leu Cys
385	390	395
Ala Glu Ser Ile Val Ser	Tyr Leu Ser Gln Asn Phe	Ile Thr Trp Ala
405	410	415
Trp Asp Leu Thr Lys Asp	Ser Asn Arg Ala Arg Phe	Leu Thr Met Cys
420	425	430
Asn Arg His Phe Gly Ser	Val Val Ala Gln Thr Ile	Arg Thr Gln Lys
435	440	445
Thr Asp Gln Phe Pro Leu	Phe Leu Ile Ile Met Gly	Lys Arg Ser Ser
450	455	460
Asn Glu Val Leu Asn Val	Ile Gln Gly Asn Thr Thr	Val Asp Glu Leu
465	470	475
Met Met Arg Leu Met Ala	Ala Met Glu Ile Phe Thr	Ala Gln Gln Gln
485	490	495
Glu Asp Ile Lys Asp Glu	Asp Glu Arg Glu Ala Arg	Glu Asn Val Lys
500	505	510
Arg Glu Gln Asp Glu Ala	Tyr Arg Leu Ser Leu Glu	Ala Asp Arg Ala
515	520	525
Lys Arg Glu Ala His Glu	Arg Glu Met Ala Glu Gln	Phe Arg Leu Glu
530	535	540
Gln Ile Arg Lys Glu Gln	Glu Glu Glu Arg Glu Ala	Ile Arg Leu Ser
545	550	555
Leu Glu Gln Ala Leu Pro	Pro Glu Pro Lys Glu Glu	Asn Ala Glu Pro
565	570	575
Val Ser Lys Leu Arg Ile	Arg Thr Pro Ser Gly Glu	Phe Leu Glu Arg
580	585	590
Arg Phe Leu Ala Ser Asn	Lys Leu Gln Ile Val Phe	Asp Phe Val Ala
595	600	605
Ser Lys Gly Phe Pro Trp	Asp Glu Tyr Lys Leu Leu	Ser Thr Phe Pro
610	615	620
Arg Arg Asp Val Thr Gln	Leu Asp Pro Asn Lys Ser	Leu Leu Glu Val
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Lys Leu Phe Pro Gln Glu	Thr Leu Phe Leu Glu Ala	Lys Glu
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<210> 6265

<211> 1344

<212> DNA

<213> Homo sapiens

<400> 6265

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 180
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 360
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 420
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 480
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<210> 6266

<211> 240

<212> PRT

<213> Homo sapiens

<400> 6266

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      20           25           30
Ser Pro Asp Asp Lys Glu Phe Gln Ser Val Glu Glu Glu Met Gln Ser
      35           40           45
Thr Val Arg Glu His Arg Asp Gly Gly His Ala Gly Gly Ile Phe Asn
      50           55           60
Arg Tyr Asn Ile Leu Lys Ile Gln Lys Val Cys Asn Lys Lys Leu Trp
      65           70           75           80
Glu Arg Tyr Thr His Arg Arg Lys Glu Val Ser Glu Glu Asn His Asn
      85           90           95
His Ala Asn Glu Arg Met Leu Phe His Gly Ser Pro Phe Val Asn Ala
      100          105          110
Ile Ile His Lys Gly Phe Asp Glu Arg His Ala Tyr Ile Gly Gly Met
      115          120          125
Phe Gly Ala Gly Ile Tyr Phe Ala Glu Asn Ser Ser Lys Ser Asn Gln
      130          135          140
Tyr Val Tyr Gly Ile Gly Gly Gly Thr Gly Cys Pro Val His Lys Asp
      145          150          155          160
Arg Ser Cys Tyr Ile Cys His Arg Gln Leu Leu Phe Cys Arg Val Thr
      165          170          175
Leu Gly Lys Ser Phe Leu Gln Phe Ser Ala Met Lys Met Ala His Ser
      180          185          190
Pro Pro Gly His His Ser Val Thr Gly Arg Pro Ser Val Asn Gly Leu
      195          200          205
Ala Leu Ala Glu Tyr Val Ile Tyr Arg Gly Glu Gln Ala Tyr Pro Glu
      210          215          220
Tyr Leu Ile Thr Tyr Gln Ile Met Arg Pro Glu Gly Met Val Asp Gly
      225          230          235          240

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<210> 6267

<211> 328

<212> DNA

<213> Homo sapiens

<400> 6267

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240
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<210> 6268

<211> 83

<212> PRT

<213> Homo sapiens

<400> 6268

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 35 40 45
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 Glu Ala Leu Gly Ala Leu Val Cys Arg Val Gln Leu Gly Pro Tyr Gln
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<210> 6269

<211> 923

<212> DNA

<213> Homo sapiens

<400> 6269

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<210> 6270

<211> 307
 <212> PRT
 <213> Homo sapiens

<400> 6270

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Glu Glu Leu Ile His Gln Leu Arg Asn Val Met Val Leu Gln Asp Glu
      35           40           45
Asn Phe Val Ser Lys Glu Glu Phe Gln Ala Val Glu Lys Lys Leu Val
      50           55           60
Glu Glu Lys Ala Ala His Ala Lys Thr Lys Val Leu Leu Ala Lys Glu
      65           70           75           80
Glu Glu Lys Leu Gln Phe Ala Leu Gly Glu Val Glu Val Leu Ser Lys
      85           90           95
Gln Leu Glu Lys Glu Lys Leu Ala Phe Glu Lys Ala Leu Ser Ser Val
      100          105          110
Lys Ser Lys Val Leu Gln Glu Ser Ser Lys Lys Asp Gln Leu Ile Thr
      115          120          125
Lys Cys Asn Glu Ile Glu Ser His Ile Ile Lys Gln Glu Asp Ile Leu
      130          135          140
Asn Gly Lys Glu Asn Glu Ile Lys Glu Leu Gln Gln Val Ile Ser Gln
      145          150          155          160
Gln Lys Gln Ile Phe Ser Pro Pro Pro Ala Gly Ser Val Ala Gly Ile
      165          170          175
Thr Cys Leu Thr Ser Gly Ser Arg Ser Ser Arg Lys Ala Thr Trp Pro
      180          185          190
Arg Cys Trp Thr Arg Ser Ile Arg Lys Pro Gln Gly His Val Arg Pro
      195          200          205
Ala Ala Thr Ser Ile Pro Gly Lys Asn Lys Met Ala Ala Ala Phe Leu
      210          215          220
Phe Ser Gly Cys Asn Pro Gln Pro Leu Pro Ser Leu Leu Trp Glu Ser
      225          230          235          240
Pro Ala Ser Ser Pro Cys Tyr Phe Pro Pro Ser Trp Ile Val Val Gly
      245          250          255
Val His Lys Val Gly Ala Cys Ser Leu Gly Glu Glu Leu Gly Leu Cys
      260          265          270
Cys Leu Val Gly Thr Thr Ala Ser Phe Gly Tyr Leu Ile Pro Ser Tyr
      275          280          285
Ile Asn Ser Pro Gly Tyr Pro Val Ile Phe His Pro Thr Pro Ser Val
      290          295          300
Leu Val Asn
305

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<210> 6271
 <211> 1437
 <212> DNA
 <213> Homo sapiens

<400> 6271

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<211> 296

<212> PRT

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<400> 6272

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<212> DNA

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<213> Homo sapiens

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<212> PRT

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 <212> PRT
 <213> Homo sapiens

<400> 6280
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 Arg His Lys Phe Thr Gly Lys Lys Val Thr Glu Glu Leu Leu Thr Asp
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 Asn Arg Tyr Leu Leu Leu Val Leu Met Asp Ala Glu Arg Ala Trp Ser
 115 120 125
 Tyr Ala Met Gln Leu Lys Gln Glu Ala Asn Thr Glu Pro Arg Lys Arg
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Ile Arg Leu Tyr Asp Ile Ile Leu Gln Asn Leu Val Glu Leu Leu Gln
          420          425          430
Leu Pro Gly Leu Glu Glu Asp Lys Ala Phe Gln Lys Glu Ile Gly Leu
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Lys Thr Leu Val Phe Lys Ala Tyr Arg Cys Phe Phe Ile Ala Gln Ser
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Tyr Val Leu Val Lys Lys Trp Ser Glu Ala Leu Val Leu Tyr Asp Arg
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Val Leu Lys Tyr Ala Asn Glu Val Asn Ser Asp Ala Gly Ala Phe Lys
          485          490          495
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Arg Ser Glu Lys Cys Ser Leu Gln Ala Ala Ile Leu Asp Ala Asn
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Asp Ala His Gln Thr Glu Thr Ser Ser Ser Gln Val Lys Asp Asn Lys
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Thr Lys Gln Ala Asn Leu Val His Phe Pro Pro Gly Phe Gln Pro Ile
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Pro Cys Lys Pro Leu Phe Phe Asp Leu Ala Leu Asn His Val Ala Phe
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<210> 6281

<211> 741

<212> DNA

<213> Homo sapiens

<400> 6281

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<210> 6282

<211> 162

<212> PRT

<213> Homo sapiens

<400> 6282

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			20				25					30			
Glu	Lys	Lys	Gln	Met	Val	Ala	Asn	Val	Glu	Lys	Gln	Leu	Glu	Glu	Ala
		35				40					45				
Lys	Glu	Leu	Leu	Glu	Gln	Met	Asp	Leu	Glu	Val	Arg	Glu	Ile	Pro	Pro
	50					55				60					
Gln	Ser	Arg	Gly	Met	Tyr	Ser	Asn	Arg	Met	Arg	Ser	Tyr	Lys	Gln	Glu
65				70					75					80	
Met	Gly	Lys	Leu	Glu	Thr	Asp	Phe	Lys	Arg	Ser	Arg	Ile	Ala	Tyr	Ser
			85					90					95		
Asp	Glu	Val	Arg	Asn	Glu	Leu	Leu	Gly	Asp	Asp	Gly	Asn	Ser	Ser	Glu
			100					105				110			
Asn	Gln	Arg	Ala	His	Leu	Leu	Asp	Asn	Thr	Glu	Arg	Leu	Glu	Arg	Ser
		115					120					125			
Ser	Arg	Arg	Leu	Glu	Ala	Gly	Tyr	Gln	Ile	Ala	Val	Glu	Thr	Gly	Glu
	130					135				140					
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<210> 6283

<211> 2312

<212> DNA

<213> Homo sapiens

<400> 6283

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<210> 6284

<211> 122

<212> PRT

<213> Homo sapiens

<400> 6284

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			20				25				30				
Lys	Pro	Ile	His	Val	Phe	Phe	Gly	Ala	Ala	Ile	Leu	Ser	Leu	Ser	Ile
		35					40				45				
Ala	Ser	Val	Ile	Ser	Gly	Ile	Asn	Glu	Lys	Leu	Phe	Phe	Ser	Leu	Lys
		50				55				60					
Asn	Thr	Thr	Arg	Pro	Tyr	His	Ser	Leu	Pro	Ser	Glu	Ala	Val	Phe	Ala
65				70					75					80	
Asn	Ser	Thr	Gly	Met	Leu	Val	Val	Ala	Phe	Gly	Leu	Leu	Val	Leu	Tyr
			85					90					95		
Ile	Leu	Leu	Ala	Ser	Ser	Trp	Lys	Arg	Pro	Glu	Pro	Gly	Ile	Leu	Thr
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<210> 6285

<211> 2542

<212> DNA

<213> Homo sapiens

<400> 6285

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<210> 6286

<211> 57

<212> PRT

<213> Homo sapiens

<400> 6286

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<210> 6287

<211> 1674

<212> DNA

<213> Homo sapiens

<400> 6287

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<210> 6288

<211> 269
 <212> PRT
 <213> Homo sapiens

<400> 6288
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 Ile Phe Glu Leu Asp Ser Cys Asn Gly Ser Gly Lys Val Cys Leu Val
 115 120 125
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 130 135 140
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 145 150 155 160
 Tyr Tyr Arg Leu Leu Ile Thr His Leu Gly Leu Pro Gln Trp Gln Tyr
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 180 185 190
 Met Tyr Lys Pro Ile Thr Tyr Asn Thr Asn Leu Leu Thr Glu Glu Thr
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 Asp Ser Phe Val Asn Lys Leu Asp Pro Ser Lys Val Phe Lys Ser Lys
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 Asn Lys Ile Val Ile Pro Lys Lys Lys Gly Pro Val Gln Pro Ala Gly
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<210> 6290

<211> 172

<212> PRT

<213> Homo sapiens

<400> 6290

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Ala	Lys	Leu	Val	Asn	Ile	Arg	Lys	Glu	Met	Leu	Met	Leu	His	Glu	Lys
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Thr	Ser	Lys	Leu	Lys	Lys	Arg	Ala	Leu	Lys	Leu	Gln	Gln	Lys	Arg	Gln
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Lys	Glu	Glu	Leu	Glu	Arg	Glu	Gln	Gln	Arg	Glu	Lys	Gly	Phe	Glu	Arg
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<210> 6291

<211> 2718

<212> DNA

<213> Homo sapiens

<400> 6291

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<210> 6292

<211> 497

<212> PRT

<213> Homo sapiens

<400> 6292

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Ala	Leu	Trp	Leu	Arg	Phe	Lys	Tyr	Tyr	Ser	Phe	Phe	Asp	Leu	Asp	Pro
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Phe	Ala	Ala	Leu	Gln	Tyr	His	Ile	Asn	Lys	Leu	Ser	Gln	Ser	Gly	Glu
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Pro	Pro	Arg	Pro	Asp	Ala	Ser	Ala	Glu	Gly	Leu	Asn	Pro	Tyr	Gly	Leu
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Ile Ser Tyr Val Met Val Arg Phe Lys Gly Ser Arg Lys Asp Glu Ile
385          390          395          400
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          405          410          415
Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp Asn Val
          420          425          430
Asn Trp Asp Ile Arg Gln Val Ala Ile Glu Phe Asp Glu His Ile Asn
          435          440          445
Val Ala Phe Ser Cys Val Ser Ala Ser Cys Arg Ile Val His Glu Tyr
          450          455          460
Ile Gly Gly Tyr Ile Phe Leu Ser Thr Arg Glu Arg Ala Arg Gly Glu
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<210> 6293

<211> 750

<212> DNA

<213> Homo sapiens

<400> 6293

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<400> 6294
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 35 40 45
 Arg Ser Arg Leu Lys Val Arg Phe Cys Thr Asn Glu Ser Gln Lys Ser
 50 55 60
 Arg Ala Glu Leu Val Gly Gln Leu Gln Arg Leu Gly Phe Asp Ile Ser
 65 70 75 80
 Glu Gln Glu Val Thr Ala Pro Ala Pro Ala Ala Cys Gln Ile Leu Lys
 85 90 95
 Glu Arg Gly Leu Arg Pro Tyr Leu Leu Ile His Asp Gly Val Arg Ser
 100 105 110
 Glu Phe Asp Gln Ile Asp Thr Ser Asn Pro Asn Cys Val Val Ile Ala
 115 120 125
 Asp Ala Gly Glu Ser Phe Ser Tyr Gln Asn Met Asn Asn Ala Phe Gln
 130 135 140
 Val Leu Met Glu Leu Glu Lys Pro Val Leu Ile Ser Leu Gly Lys Gly
 145 150 155 160
 Arg Tyr Tyr Lys Glu Thr Ser Gly Leu Met Leu Asp Val Gly Pro Tyr
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 Met Lys Ala Leu Glu Tyr Ala Cys Gly Ile Lys Ala Glu Val Val Gly
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 Lys Pro Ser Pro Glu Phe Phe Lys Ser Ala Leu Gln Ala Ile Gly Val
 195 200 205
 Glu Ala His Gln Ala Val Met Ile Gly Asp Asp Ile Val Gly Asp Val
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<211> 399

<212> PRT

<213> Homo sapiens

<400> 6296

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Ala	Cys	Gly	Cys	Arg	Leu	Val	Leu	Gly	Gly	Arg	Asp	Asp	Val	Ser	Ala
		35					40					45			
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Arg	Gln	Pro	Arg	Ala	Ala	Pro	Ser	Phe	Phe	Phe	Ser	Ser	Ile	Lys	
				85				90						95	
Gly	Gly	Arg	Arg	Ser	Ile	Ser	Phe	Ser	Val	Gly	Ala	Ser	Ser	Val	Val
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Ala	Glu	Leu	Ile	Arg	Ala	Arg	Ala	Cys	Gln	Arg	Val	Val	Val	Met	Val
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Glu	Ala	Ile	Phe	Glu	Leu	Pro	Phe	Phe	His	Asn	Pro	Lys	Pro	Phe	
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Arg Cys Met Gln Cys Asp Ala Lys Phe Asp Phe Leu Thr Arg Lys His
          50          55          60
His Cys Arg Arg Cys Gly Lys Cys Phe Cys Asp Arg Cys Cys Ser Gln
65          70          75          80
Lys Val Pro Leu Arg Arg Met Cys Phe Val Asp Pro Val Arg Gln Cys
          85          90          95
Ala Glu Cys Ala Leu Val Ser Leu Lys Glu Ala Glu Phe Tyr Asp Lys

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 Cys Ala
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 <210> 6299
 <211> 1466
 <212> DNA
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<211> 372

<212> PRT

<213> Homo sapiens

<400> 6300

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Gly Asp Ile His Thr Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe				
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Arg Leu Val Lys Arg Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu				
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<210> 6301

<211> 911

<212> DNA

<213> Homo sapiens

<400> 6301

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<210> 6302

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<212> PRT

<213> Homo sapiens

<400> 6302

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      35           40           45
Ser Ser Val Ser Arg Gly Asn Val Ser Thr Pro Pro Arg His Ser Ser
      50           55           60
Gly Ser Leu Thr Pro Pro Val Thr Pro Pro Ile Thr Pro Ser Ser Ser
      65           70           75           80
Phe Arg Ser Ser Thr Pro Thr Gly Ser Glu Tyr Asp Glu Glu Glu Val
      85           90           95
Asp Tyr Glu Glu Ser Asp Ser Asp Glu Ser Trp Thr Thr Glu Ser Ala
      100          105          110
Ile Ser Ser Glu Ala Ile Leu Ser Ser Met Cys Met Asn Gly Gly Glu
      115          120          125
Glu Lys Pro Phe Ala Cys Pro Val Pro Gly Cys Lys Lys Arg Tyr Lys
      130          135          140
Asn Val Asn Gly Ile Lys Tyr His Ala Lys Asn Gly His Arg Thr Gln
      145          150          155          160
Ile Arg Val Arg Lys Pro Phe Lys Cys Arg Cys Gly Lys Ser Tyr Lys
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Thr Ala Gln Gly Leu Arg His His Thr Ile Asn Phe His Pro Pro Val
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<211> 676

<212> DNA

<213> Homo sapiens

<400> 6303

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<210> 6304

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<213> Homo sapiens

<400> 6304

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			20					25					30		
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		35					40					45			
Asp	Ser	His	Leu	Trp	Lys	Leu	Leu	Asp	Arg	His	Ala	Asn	Thr	Ile	Arg
	50					55					60				
Leu	Phe	Val	Leu	Leu	Pro	Glu	Gln	Ser	Pro	Val	Ser	Tyr	Ser	Lys	Arg
65					70					75					80
Thr	Ala	Tyr	Gln	Lys	Ala	Gly	Gly	Asp	Ser	Gly	Asn	Val	Asp	Asp	Asp
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Cys	Glu	Arg	Val	Lys	Gly	Pro	Val	Gly	Ser	Leu	Lys	Ser	Val	Glu	Ala
			100					105					110		
Ile	Leu	Glu	Glu	Ser	Thr	Glu	Lys	Leu	Lys	Ser	Leu	Ser	Leu	Gln	Gln
		115					120					125			
Gln	Gln	Asp	Gly	Asp	Asn	Gly	Asp	Ser	Ser	Lys	Ser	Thr	Glu	Thr	Ser
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Asp	Phe	Glu	Asn	Ile	Glu	Ser	Pro	Leu	Asn	Glu	Arg	Asp	Ser	Ser	Ala
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<210> 6305

<211> 3853

<212> DNA

<213> Homo sapiens

<400> 6305

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<211> 474

<212> PRT

<213> Homo sapiens

<400> 6306

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			50			55					60				
Lys	Thr	Gly	Arg	Ile	Asp	Lys	Ala	Tyr	Pro	Thr	Val	Cys	Gly	His	Thr
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Asn	Gly	Leu	Thr	Ser	Pro	Leu	Thr	Glu	Pro	Val	Val	Val	Leu	Glu	Gly
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His	Thr	Lys	Arg	Val	Gly	Ile	Ile	Ala	Trp	His	Pro	Thr	Ala	Arg	Asn
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Ile	Tyr	Asn	Val	Ser	Trp	Asn	His	Asn	Gly	Ser	Leu	Phe	Cys	Ser	Ala
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Cys	Lys	Asp	Lys	Ser	Val	Arg	Ile	Ile	Asp	Pro	Arg	Arg	Gly	Thr	Leu
			195				200					205			
Val	Ala	Glu	Arg	Glu	Lys	Ala	His	Glu	Gly	Ala	Arg	Pro	Met	Arg	Ala
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					245				250					255	
Ile	Ala	Leu	His	Glu	Met	Asp	Thr	Ser	Asn	Gly	Val	Leu	Leu	Pro	Phe
			260					265				270			
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Lys Leu His Glu Arg Lys Cys Glu Pro Ile Ile Met Thr Val Pro Arg
      340              345              350
Lys Ser Asp Leu Phe Gln Asp Asp Leu Tyr Pro Asp Thr Ala Gly Pro
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<211> 2119

<212> DNA

<213> Homo sapiens

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660

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1140
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2119

<210> 6308

<211> 483

<212> PRT

<213> Homo sapiens

<400> 6308

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Met Thr Lys Met Asp Ile Arg Gly Ala Val Asp Ala Ala Val Pro Thr
 1           5           10           15
Asn Ile Ile Ala Ala Lys Ala Ala Glu Val Arg Ala Asn Lys Val Asn
      20           25           30
Trp Gln Ser Tyr Leu Gln Gly Gln Met Ile Ser Ala Glu Asp Cys Glu
      35           40           45
Phe Ile Gln Arg Phe Glu Met Lys Arg Ser Pro Glu Glu Lys Gln Glu
      50           55           60
Met Leu Gln Thr Glu Gly Ser Gln Cys Ala Lys Thr Phe Ile Asn Leu
65           70           75           80
Met Thr His Ile Cys Lys Glu Gln Thr Val Gln Tyr Ile Leu Thr Met
      85           90           95
Val Asp Asp Met Leu Gln Glu Asn His Gln Arg Val Ser Ile Phe Phe
      100          105          110
Asp Tyr Ala Arg Cys Ser Lys Asn Thr Ala Trp Pro Tyr Phe Leu Pro
      115          120          125
Met Leu Asn Arg Gln Asp Pro Phe Thr Val His Met Ala Ala Arg Ile
      130          135          140
Ile Ala Lys Leu Ala Ala Trp Gly Lys Glu Leu Met Glu Gly Ser Asp
      145          150          155          160
Leu Asn Tyr Tyr Phe Asn Trp Ile Lys Thr Gln Leu Ser Ser Gln Lys
      165          170          175
Leu Arg Gly Ser Gly Val Ala Val Glu Thr Gly Thr Val Ser Ser Ser
      180          185          190
Asp Ser Ser Gln Tyr Val Gln Cys Val Ala Gly Cys Leu Gln Leu Met
      195          200          205
Leu Arg Val Asn Glu Tyr Arg Phe Ala Trp Val Glu Ala Asp Gly Val
      210          215          220
Asn Cys Ile Met Gly Val Leu Ser Asn Lys Cys Gly Phe Gln Leu Gln
      225          230          235          240
Tyr Gln Met Ile Phe Ser Ile Trp Leu Leu Ala Phe Ser Pro Gln Met
      245          250          255
Cys Glu His Leu Arg Arg Tyr Asn Ile Ile Pro Val Leu Ser Asp Ile
      260          265          270
Leu Gln Glu Ser Val Lys Glu Lys Val Thr Arg Ile Ile Leu Ala Ala
      275          280          285
Phe Arg Asn Phe Leu Glu Lys Ser Thr Glu Arg Glu Thr Arg Gln Glu
      290          295          300
Tyr Ala Leu Ala Met Ile Gln Cys Lys Val Leu Lys Gln Leu Glu Asn
      305          310          315          320
Leu Glu Gln Gln Lys Tyr Asp Asp Glu Asp Ile Ser Glu Asp Ile Lys
      325          330          335
Phe Leu Leu Glu Lys Leu Gly Glu Ser Val Gln Asp Leu Ser Ser Phe
      340          345          350
Asp Glu Tyr Ser Ser Glu Leu Lys Ser Gly Arg Leu Glu Trp Ser Pro
      355          360          365
Val His Lys Ser Glu Lys Phe Trp Arg Glu Asn Ala Val Arg Leu Asn
      370          375          380
Glu Lys Asn Tyr Glu Leu Leu Lys Ile Leu Thr Lys Leu Leu Glu Val
      385          390          395          400
Ser Asp Asp Pro Gln Val Leu Ala Val Ala Ala His Asp Val Gly Glu

```

```

                405                410                415
Tyr Val Arg His Tyr Pro Arg Gly Lys Arg Val Ile Glu Gln Leu Gly
                420                425                430
Gly Lys Gln Leu Val Met Asn His Met His His Glu Asp Gln Gln Val
                435                440                445
Arg Tyr Asn Ala Leu Leu Ala Val Gln Lys Leu Met Val His Asn Trp
                450                455                460
Glu Tyr Leu Gly Lys Gln Leu Gln Ser Glu Gln Pro Gln Thr Ala Ala
465                470                475                480
Ala Arg Ser

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<210> 6309
 <211> 564
 <212> DNA
 <213> Homo sapiens

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<400> 6309
cggccgcagc gttcacggtg acatcgcaaa aggcgagggg gagacgcgcc cgccgggaccc
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120
ccaggcgctt cccacggggt tccccgcgac ccgcgacacc accaacagtc gccgcaaccg
180
ccgcgtggaa cagacgaccc ggggtctcaa gaggcggcgc gggcgggacg cagcccttgg
240
tccatctcgg gcgcgcgctg atgcactcct actgcgcccg ggtcctcccg gcctgtctca
300
ctttgggggg ctcaggggtc tcacggggga cgcctgcacg taagccagga cggcgttctg
360
caggaagctc gccctctggg cctcctcgtc ccggatgcgg gcgatctccg cctcccggag
420
ccgcagcttc tcccggagag acgcgttctc gctctccctg tccagcagcg cgatctgagc
480
tcaactggaac ctccacctcc caggttcgag tgattctcct gcctcagcct cctgagtagc
540
tggtattaca gggtgccacc acta
564

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<210> 6310
 <211> 83
 <212> PRT
 <213> Homo sapiens

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<400> 6310
Cys Thr Pro Thr Ala Pro Gly Ser Ser Arg Pro Val Ser Leu Trp Gly
1      5      10      15
Ala Gln Gly Pro His Gly Gly Arg Leu His Val Ser Gln Asp Gly Val
20      25      30
Leu Gln Glu Ala Arg Pro Leu Gly Leu Leu Val Pro Asp Ala Gly Asp
35      40      45
Leu Arg Leu Pro Glu Pro Gln Leu Leu Pro Glu Arg Arg Val Leu Ala
50      55      60
Leu Pro Val Gln Gln Arg Asp Leu Ser Ser Leu Glu Pro Pro Pro Pro

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65
Arg Phe Glu

70

75

80

<210> 6311
<211> 1548
<212> DNA
<213> Homo sapiens

<400> 6311
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tgagcttttt actgaatttt atagcaactc tgattttcttc ctttaaatga ttggaggctt
120
tttaaagatc ttatggggct caaataactaa cttcataaat ggccttttga ataacagcag
180
caaataatct ctccagctgat atttcaattt actaaggaag cacaattaa aacattcctg
240
ctacacagtc atgggctggc acatgtctgg ttggatgaat acaaggagca gtatttttcc
300
ttaagacctg acctgaagac gaaaagctat ggcaatatca gtgagcgtgt ggaactgaga
360
aagaagtgg gctgtaaact atttaaatgg tatttggata atgtataccc agagatgcag
420
atatctgggt cccacgcca accccaacaa cccatttttg tcaatagagg gccaaaacga
480
cccaaagtcc ttcaacgtgg aaggctctat cacctccaga ccaacaaatg cctggtggcc
540
cagggccgcc caagtcagaa gggaggtctc gtggtgctta aggcctgtga ctacagtgc
600
ccaaatcaga tctggatcta taatgaagag catgaattgg ttttaaatag tctcctttgt
660
ctagatatgt cagagactcg ctcatcagac ccgccacggc tcatgaaatg ccacgggtca
720
ggaggatccc agcagtggac ctttgggaaa aacaatcggc tataccaggt gtcggttga
780
cagtgcctga gagcagtga tcccctgggt cagaagggct ctgtcgccat ggcgatctgc
840
gatggctcct cttcacagca gtggcatttg gaaggttaag gtggatgctg tggcggaac
900
gttgcttcat caggcgttgc ctccggtgtg gagtttgggg ctttaggaaa gcctgggttg
960
ggtggagcag aaccatcttg gagaagatga cagttccctg tcctcccga gatgcctggg
1020
tgtgttagca gaggtgacac gtgtctgaca gagacgggag ctctgagtgt ccacgggtga
1080
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1140
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1200
tagaattggg cttgtacaga aggataaaac ccaggaaaat ggatatttct attcagattt
1260
atztatgcct ctttttaatc ccctttaatg atgcagtggg ttttatctga tcaggaactt
1320

gtcatgattt cctttcttag acttcatagg agatagtgtt ttaaaaaaaaa aaaaacttct
 1380
 attatttggt tagtatgttg taagtagatc attttaaaaa actgaatcta tattatgttt
 1440
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 1500
 aattatgata caatctacat aataaagaat ccttttgatt aaaaaaaaa
 1548

<210> 6312

<211> 234

<212> PRT

<213> Homo sapiens

<400> 6312

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Gln	Ile	Lys	Thr	Phe	Leu	Leu	His	Ser	His	Gly	Leu	Ala	His	Val	Trp
			20					25					30		
Leu	Asp	Glu	Tyr	Lys	Glu	Gln	Tyr	Phe	Ser	Leu	Arg	Pro	Asp	Leu	Lys
	35					40					45				
Thr	Lys	Ser	Tyr	Gly	Asn	Ile	Ser	Glu	Arg	Val	Glu	Leu	Arg	Lys	Lys
	50				55					60					
Leu	Gly	Cys	Lys	Ser	Phe	Lys	Trp	Tyr	Leu	Asp	Asn	Val	Tyr	Pro	Glu
65					70				75					80	
Met	Gln	Ile	Ser	Gly	Ser	His	Ala	Lys	Pro	Gln	Gln	Pro	Ile	Phe	Val
				85					90					95	
Asn	Arg	Gly	Pro	Lys	Arg	Pro	Lys	Val	Leu	Gln	Arg	Gly	Arg	Leu	Tyr
			100					105					110		
His	Leu	Gln	Thr	Asn	Lys	Cys	Leu	Val	Ala	Gln	Gly	Arg	Pro	Ser	Gln
	115						120					125			
Lys	Gly	Gly	Leu	Val	Val	Leu	Lys	Ala	Cys	Asp	Tyr	Ser	Asp	Pro	Asn
	130					135					140				
Gln	Ile	Trp	Ile	Tyr	Asn	Glu	Glu	His	Glu	Leu	Val	Leu	Asn	Ser	Leu
145					150					155				160	
Leu	Cys	Leu	Asp	Met	Ser	Glu	Thr	Arg	Ser	Ser	Asp	Pro	Pro	Arg	Leu
				165					170					175	
Met	Lys	Cys	His	Gly	Ser	Gly	Gly	Ser	Gln	Gln	Trp	Thr	Phe	Gly	Lys
			180					185					190		
Asn	Asn	Arg	Leu	Tyr	Gln	Val	Ser	Val	Gly	Gln	Cys	Leu	Arg	Ala	Val
	195						200					205			
Asp	Pro	Leu	Gly	Gln	Lys	Gly	Ser	Val	Ala	Met	Ala	Ile	Cys	Asp	Gly
	210					215					220				
Ser	Ser	Ser	Gln	Gln	Trp	His	Leu	Glu	Gly						
225					230										

<210> 6313

<211> 725

<212> DNA

<213> Homo sapiens

<400> 6313

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gagaaaatat acagcaggag ggatgaggag tacacatagg aaatttctgt gattttcttc
 120
 attttgatcg tattgctttc ttgtcttcag gaggaagat ttcgacttca aaagtaacaa
 180
 aatatttaag aagagaattc acatctttct gttctagctg gtattcttgc attattttct
 240
 cagcagtcca ggtttctggg aaaagcttat gattattgag aagtgtcaat gcttctacaa
 300
 tggaaatttt gcctttggga atgctcttaa tatttatcat atcaaaatga tggctcttcg
 360
 gcaatctgaa ttccttcggc tcttgacatg ttccagcagc ttttacctgc aaggaagaca
 420
 caggatcttt ggaatcaaca tacacatctt ttagaaacga cagcagcttt tcattctttac
 480
 gagcaatctc tcctttaact tctggataga gactaatctg ctctcgagg aggctgttgg
 540
 tagaggggtg tctgggagcg acagagggct tcattctgct gatttcccg tccgctcggt
 600
 tctctaggtt gaaattctg ataccgcgaa tcactagtgc tcccatctcc tcataacatt
 660
 atgcgctcag gtccaggccg cacgtgggaa caccggcgca ggacaactct cgggacaccc
 720
 ggagc
 725

<210> 6314

<211> 175

<212> PRT

<213> Homo sapiens

<400> 6314

Met	Gly	Ala	Leu	Val	Ile	Arg	Gly	Ile	Arg	Asn	Phe	Asn	Leu	Glu	Asn
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Arg	Ala	Glu	Arg	Glu	Ile	Ser	Lys	Met	Lys	Pro	Ser	Val	Ala	Pro	Arg
			20					25					30		
His	Pro	Ser	Thr	Asn	Ser	Leu	Leu	Arg	Glu	Gln	Ile	Ser	Leu	Tyr	Pro
		35				40						45			
Glu	Val	Lys	Gly	Glu	Ile	Ala	Arg	Lys	Asp	Glu	Lys	Leu	Leu	Ser	Phe
	50					55				60					
Leu	Lys	Asp	Val	Tyr	Val	Asp	Ser	Lys	Asp	Pro	Val	Ser	Ser	Leu	Gln
65				70					75					80	
Val	Lys	Ala	Ala	Glu	Thr	Cys	Gln	Glu	Pro	Lys	Glu	Phe	Arg	Leu	Pro
			85					90						95	
Lys	Asp	His	His	Phe	Asp	Met	Ile	Asn	Ile	Lys	Ser	Ile	Pro	Lys	Gly
			100					105					110		
Lys	Ile	Ser	Ile	Val	Glu	Ala	Leu	Thr	Leu	Leu	Asn	Asn	His	Lys	Leu
		115					120					125			
Phe	Pro	Glu	Thr	Trp	Thr	Ala	Glu	Lys	Ile	Met	Gln	Glu	Tyr	Gln	Leu
	130					135					140				
Glu	Gln	Lys	Asp	Val	Asn	Ser	Leu	Leu	Lys	Tyr	Phe	Val	Thr	Phe	Glu
145				150					155					160	
Val	Glu	Ile	Phe	Pro	Pro	Glu	Asp	Lys	Lys	Ala	Ile	Arg	Ser	Lys	
			165					170						175	

<210> 6315
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 6315
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 60
 gctcaaaaca gaaaacttgt ggaggccata aaacaaggct acattcctga gctccaggag
 120
 tatgtaaaat ataatatgc aatggatgaa gctgatgaaa aaggatgggt tccattgcat
 180
 gaagctgttg ttcaacccat tcaacaaata cttgagattg ttctggatgc atcctataag
 240
 acactctggg aattcaagac ctgtgatgga gaaacaccct tgactttggc agtcaaagct
 300
 ggtctgggtg aaaatgtaag aactttatta gaaaaggag tgtggcccaa cacaaaaaat
 360
 gataaaggag agaccccc
 378

<210> 6316
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 6316
 Gln Glu Ser Ile Glu Ala Ser Lys Thr Ala Leu Cys Pro Glu Arg Phe
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 Val Pro Leu Ser Ala Gln Asn Arg Lys Leu Val Glu Ala Ile Lys Gln
 20 25 30
 Gly His Ile Pro Glu Leu Gln Glu Tyr Val Lys Tyr Lys Tyr Ala Met
 35 40 45
 Asp Glu Ala Asp Glu Lys Gly Trp Phe Pro Leu His Glu Ala Val Val
 50 55 60
 Gln Pro Ile Gln Gln Ile Leu Glu Ile Val Leu Asp Ala Ser Tyr Lys
 65 70 75 80
 Thr Leu Trp Glu Phe Lys Thr Cys Asp Gly Glu Thr Pro Leu Thr Leu
 85 90 95
 Ala Val Lys Ala Gly Leu Val Glu Asn Val Arg Thr Leu Leu Glu Lys
 100 105 110
 Gly Val Trp Pro Asn Thr Lys Asn Asp Lys Gly Glu Thr Pro
 115 120 125

<210> 6317
 <211> 1201
 <212> DNA
 <213> Homo sapiens

<400> 6317
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 60
 ttcttaagat gtcttgccga agtagcaaga gcggagggtg actgtgtgag caggagcgag
 120

agggcgccag ctccctgcggg ggagggttcc actgcgcgcc ccaccctgtg caagaatgtc
 180
 aggccttagg gcagctgcc taggccccag gggcatcagg actctgcctc tgaaccagag
 240
 ctgctttccc gactaacttc aatctggaga gatggtaagt tatctaaccg gctcttcttt
 300
 tggcgagact gctctttctc cttaatcaga gcccccatg ccctttgcag ctcagagtcg
 360
 tcttcctcag cgccaggcac cctgtgatcc actttcttcg tattcttttc ttggtcttg
 420
 ggtgcagttc ctaggcgagt ccataaatta cctgatttct tctcccgagt atcggcgtag
 480
 aggcctttac taccctgcct gggaacacct agcctactat gcacatcaga agagggtctc
 540
 ctccgaacga cgggggttact actaaaagcc ttttcgggag aatgtggtct ttttcctaac
 600
 cgctggcgta tatctgattt agtactgctg actgggtggc gtggacggga gtgctgacgt
 660
 ttctcatcta atagatgtcg gacatctgca aatttctcag gtggtaatth gttaccaatt
 720
 cggtttttga tattgcttga agatacacta tctgcctca tggagtccct aatatttttc
 780
 aactgagatt ccacttcgtc agcatacata gtcattttca tgcttttctt tgggtgaaggc
 840
 gtggaaatca ttttcagtcc tagatcatag tccatttcat ctgagtctga gctgctggca
 900
 ctggatcgtc tagacgcgct ccgctcccgg ggctgcttga gagccgggag ctccctcgtgg
 960
 tactctacca ccactctgtc atctgcatcc atgtcctggc cttcttcttc ctcttctct
 1020
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 1080
 gaatgtcgat gtttatacga cgtcaagcca acgtcatccc caatcagggc tctcttcttg
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 1200
 c
 1201

<210> 6318

<211> 94

<212> PRT

<213> Homo sapiens

<400> 6318

Ser Ile Ser Ser Glu Ser Glu Leu Leu Ala Leu Asp Arg Leu Asp Ala
 1 5 10 15
 Leu Arg Ser Arg Gly Cys Leu Arg Ala Gly Ser Ser Ser Trp Tyr Ser
 20 25 30
 Thr Thr Thr Leu Ser Ser Ala Ser Met Ser Trp Ser Ser Ser Ser
 35 40 45
 Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Met Gly Ser Ser
 50 55 60
 Gly Thr Phe Thr Ser Pro Glu Cys Arg Cys Leu Tyr Asp Val Lys Pro

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65                               70                               75                               80
Thr Ser Ser Pro Ile Arg Ala Leu Phe Leu Ile Thr Ser Arg
      85                               90

<210> 6319
<211> 345
<212> DNA
<213> Homo sapiens

<400> 6319
gcgcgcgcgc tgtggggccgc ctccgcagcc ggccacctgg acgtggtgcg gagcctgctg
60
cgccgcgggg cctcggtgaa ccgcaccacg cgcaccaact ccacgcctct ccgcgcgcgc
120
tgcttcgacg gccacctgga ggtggtgcg tacctggtcg gcgagcacca ggccgacctg
180
gagggtggcca accggcacgg ccacacgtgc ctcatgatct cgtgctacaa gggccaccgt
240
gagatcgccc gctacctgct ggagcagggc gcccaggtga accggcgcgag cgccaagggc
300
aacacggccc tgcattgactg cgccgagtcg ggcagcctgg agatc
345

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<210> 6320
<211> 115
<212> PRT
<213> Homo sapiens
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<400> 6320
Ala Pro Pro Leu Trp Ala Ala Ser Ala Ala Gly His Leu Asp Val Val
 1                    5                10                15
Arg Ser Leu Leu Arg Arg Gly Ala Ser Val Asn Arg Thr Thr Arg Thr
      20                25                30
Asn Ser Thr Pro Leu Arg Ala Ala Cys Phe Asp Gly His Leu Glu Val
      35                40                45
Val Arg Tyr Leu Val Gly Glu His Gln Ala Asp Leu Glu Val Ala Asn
      50                55                60
Arg His Gly His Thr Cys Leu Met Ile Ser Cys Tyr Lys Gly His Arg
65                70                75                80
Glu Ile Ala Arg Tyr Leu Leu Glu Gln Gly Ala Gln Val Asn Arg Arg
      85                90                95
Ser Ala Lys Gly Asn Thr Ala Leu His Asp Cys Ala Glu Ser Gly Ser
      100                105                110
Leu Glu Ile
      115

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```
<210> 6321
<211> 1442
<212> DNA
<213> Homo sapiens
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<400> 6321
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60
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ttgtgaaacg gtaggtcatt ccctgcctca tgcagaactc agccctgtgg agctccacca
120
cctggcccag gccctgccc catgcaacct cccgggggtgg ccctcaatga cctgcacgtc
180
ccttcactct aaggaacct gagttacagt ggccttaagg acatgtgtat ttagaagcct
240
ttgtgtacaa actagctctg tgcgctctca gtttaccgtc ctcacacttt attgttagct
300
gttctttaag tttctcacac attattggca attatgtaaa aatcaagaac ctctataaaa
360
caacctggct ttccagggtg aattccgcat acagccaaaa ctggattcca gtgtggccag
420
acaacgccc tgtcccaatt taagagtgc tgcctcacc accatccgga gtggcctctc
480
tgtcagtgtg tgatgtggcc agggcagtgt ccacctgaac ttcctcctca tcggactgaa
540
caacggggga ctccccaccc tcaactgatgt cccgggtggc cgagtccgtg cagggtggagg
600
aagaagaagg tggcttggct cttaattctg agggatttgg aacctggagg gtaatctcat
660
tctgacaggt actggattca ggcctaagg cgggggacag cacagtgttc tcttctcctc
720
cagagtccag gaagacgtcc agggcctcct ggtccgatat gtccatcagg tccatctgct
780
ccagcatgtc cacgttcaact tccatggatg acatgctgcc tatgggctct cgccgctctg
840
caatctgcag gtagccagtg gacaggtact gctgctccat gtctgctgg aaggcttctc
900
caaaaaactt ctgccgtcc ttcagcttca tttgctgggt gtgctccatt tccaggacct
960
tctgggcgtg ctctgcatct agttcagagg gatccctctg actattttcg gtgagtcctg
1020
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          35          40          45
Gln Asp Met Glu Gln Gln Tyr Leu Ser Thr Gly Tyr Leu Gln Ile Ala
          50          55          60
Glu Arg Arg Glu Pro Ile Gly Ser Met Ser Ser Met Glu Val Asn Val
          65          70          75          80
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          100          105          110
Pro Ala Leu Gly Pro Glu Ser Ser Thr Cys Gln Asn Glu Ile Thr Leu
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Gln Val Pro Asn Pro Ser Glu Leu Arg Ala Lys Pro Pro Ser Ser Ser
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Ser Thr Cys Thr Asp Ser Ala Thr Arg Asp Ile Ser Glu Gly Gly Glu
          145          150          155          160
Ser Pro Val Val Gln Ser Asp Glu Glu Glu Val Gln Val Asp Thr Ala
          165          170          175
Leu Ala Thr Ser His Thr Asp Arg Glu Ala Thr Pro Asp Gly Gly Glu
          180          185          190
Asp Ser Asp Ser
          195

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What is claimed is:

1. An isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from the group consisting of SEQ ID NO:2 n , wherein n is any integer 1-3161, or the complement thereof.
2. The isolated nucleic acid molecule of claim 1, said molecule hybridizing under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 n , wherein n is any integer 1-3161, or the complement thereof.
3. The isolated nucleic acid molecule of claim 1, said molecule encoding a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n .
4. The isolated nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161.
5. The isolated nucleic acid molecule of claim 1, wherein said molecule comprises the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 n -1, wherein n is any integer 1-3161, or the complement thereof.
6. An oligonucleotide less than 100 nucleotides in length and comprising at least 10 contiguous nucleotides selected from the group consisting of SEQ ID NO:2 n -1, wherein n is any integer 1-3161, or the complement thereof.
7. A vector comprising the nucleic acid molecule of claim 1.

8. The vector of claim 7, wherein said vector is an expression vector.
9. A host cell comprising the isolated nucleic acid molecule of claim 1.
10. A substantially purified polypeptide comprising an amino acid sequence at least 80% identical to a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: $2n$, wherein n is any integer 1-3161.
11. The polypeptide of claim 10, wherein said polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: $2n$, wherein n is any integer 1-3161.
12. An antibody that selectively binds to the polypeptide of claim 10.
13. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:
 - a) the nucleic acid of claim 1;
 - b) the polypeptide of claim 10; and
 - c) the antibody of claim 12;and a pharmaceutically acceptable carrier.
14. A kit comprising in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 13.
15. A method of producing the polypeptide of claim 10, said method comprising culturing the host cell of claim 9 under conditions in which the nucleic acid molecule is expressed.
16. A method of detecting the presence of the polypeptide of claim 10 in a sample, comprising contacting the sample with a compound that selectively binds to said polypeptide under conditions allowing the formation of a complex between said polypeptide and said

compound, and detecting said complex, if present, thereby identifying said polypeptide in said sample.

17. A method of detecting the presence of a nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.

18. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.

19. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a ORFX-associated disorder, wherein said therapeutic is selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12.

20. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) contacting a test compound with the polypeptide of claim 10; and
- b) determining if said test compound binds to said polypeptide,

wherein binding of said test compound to said polypeptide indicates the test compound is a modulator of activity or of latency or predisposition to an ORFX-associated disorder.

21. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) administering a test compound to a test subject at an increased risk ORFX-associated disorder, wherein said test subject recombinantly expresses a polypeptide encoded by the nucleotide of claim 1;

- b) measuring expression the activity of said protein in said test subject;
- c) measuring the activity of said protein in a control subject that recombinantly expresses said protein and is not at increased risk for an ORFX-associated disorder; and
- d) comparing expression of said protein in said test subject and said control subject, wherein a change in the activity of said protein in said test subject relative to said control subject indicates the test compound is a modulator or of latency of predisposition to an ORFX-associated disorder.

22. The method of claim 20, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native gene promoter of said transgene.

23. A method for determining the presence of or predisposition to a disease associated with altered levels of a polypeptide of claim 11 in a subject, the method comprising:

- a) measuring the amount of the polypeptide in a sample from said subject; and
- b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample,

wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates the presence of or predisposition to a disease in said subject.

24. The method of claim 23, wherein said subject is a human.

25. A method for determining the presence of or predisposition to a disease associated with altered levels the nucleic acid molecule of claim 1 in a subject, the method comprising:

- a) measuring the amount of the nucleic acid in a sample from the mammalian subject; and
- b) comparing the amount of said nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,

wherein an alteration in the level of the nucleic acid in step (a) as compared to the control sample indicates the presence of or predisposition to said disease in said subject.

26. The method of claim 25, wherein said subject is a human.

27. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject polypeptide of claim 10 in an amount sufficient to alleviate or prevent said pathological condition.

28. The method of claim 27, wherein said subject is a human.

29. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject nucleic acid molecule of claim 1 in an amount sufficient to alleviate or prevent said pathological condition.

30. The method of claim 29, wherein said subject is a human.

31. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject antibody of claim 12 in an amount sufficient to alleviate or prevent said pathological condition.

32. The method of claim 31, wherein said subject is a human.